# Associate Cooperative Agreement Award No. AID-0AA-LA-12-00003 under

# Leader with Associates Cooperative Agreement

EM-A-OO-09-00006-00

Conservation and Adaptation in Asia's High Mountain
Landscapes and Communities:
Annual Report
10/01/2014 - 09/30/2015

Date Submitted: November 30, 2015

Submitted by:
World Wildlife Fund
1250 24<sup>th</sup> St. NW, Washington D.C. 20037





# **Table of Contents**

Acronyms and Foreign Terminology			
I. Summary of activity status and progress	Pg.	6	
a. Introduction	Pg.	6	
b. Highlights	Pg.	6	
c. Challenges	Pg.	10	
d. Adaptive Management in Action	Pg.	12	
II. Status Updates: Areas of Progress and Successes	Pg.	14	
a. Key Short and Long-term Program Objectives	Pg.	14	
b. Summary of Progress for the Individual Project Sites	Pg.	14	
c. Activity Descriptions	Pg.	18	
Bhutan	Pg.	18	
India	Pg.		
Kyrgyzstan	Pg.		
Mongolia	Pg.		
Nepal	Pg.		
Pakistan	Pg.		
Regional Activities	Pg.		
III. Lessons Learned	Pg.	91	
IV. Next Steps and Priorities	Pg.	93	
**************************************	8		
V. Annexes	Pg.	95	
Annex 1. AHM Project Year 3 Activity Status by Country	Pg.		
Annex 2: AHM Project Year 3 Activity Timeline	_	103	
Annex 3: Bhutan Activity 1.2.1D: Nikka and Kuri Chu River Basin	<u>- 8'</u>		
dzongkhag-level workshop Agendas	Pg.	121	
Annex 4: Bhutan Activity 1.2.1D: Nikka and Kuri Chu River Basin geog-	8		
level workshop Agendas	Pg.	123	
Annex 5: Bhutan Activity 1.2.2A: WCP Climate Change Adaptation			
Training Agenda	Pg.	127	
Annex 6: Bhutan Activity 1.2.4: UWICE Climate Change Vulnerability and			
	Pg.	130	
Adapation Training Agenda			
Collection, Analysis and Management Training Agenda	Pg.	131	
Annex 8: AHM Project Year 3 Media Coverage in Kyrgyzstan		133	
Annex 9: Regional Activity 2.1.9: Bhutan International Glacier Symposium			
Agenda	Pg.	134	
Annex 10: AHM Project Learning and Sharing Meeting Agenda	_	138	
Annex 11: Regional Activity 2.5.2: Global Snow Leopard Conservation			
Forum Secretariat Steering Committee Meeting Agenda	Pg.	141	
Annex 12: WWF US Year 3 Communications for the AHM Project	_	144	
Annex 13: AHM Project Year 3 Activity Photos	_	145	

#### **Acronyms and Foreign Terminology**

AHM Asia High Mountains Project

Aimag Province

AKRSP Aga Khan Rural Support Programme

ASER Altai Sayan Ecoregion
AWS Automatic Weather Station
BWS Bumdeling Wildlife Sanctuary

CARE Cooperative for Assistance and Relief Everywhere

CAUC Conservation Area User Committee

CBAPO Community-Based Anti-Poaching Operation

CBO Community-Based Organization
CBT Community-Based Tourism
CFUG Community Forest User Group
CNR College of Natural Resources

COFSUN Community Forestry Supporters' Network
CSLH Climate Summit for a Living Himalaya

DNA Deoxyribonucleic acid

DNPWC Department of National Parks and Wildlife Conservation

DoFPS Department of Forests and Park Services

Dzumsa Village Council

ECOSS Ecotourism and Conservation Society of Sikkim

FEWMD Forest, Environment and Wildlife Management Department,

Government of Sikkim

FFI Fauna and Flora International FGD Focuss Group Discussion

FY Fiscal Year
Geog Sub-district
GB Gilgit-Baltistan

GBFWED Gilgit-Baltistan Forest, Wildlife and Environment Department

GEF Global Environment Facility
GIS Geographic Information System

GIZ Gesellschaft für Internationale Zusammenarbeit

GPS Global Positioning System

GSLEP Global Snow Leopard Ecosystem Protection Program

GSLCF Global Snow Leopard Conservation Forum

GTI Global Tiger Initiative

Ha Hectare

HCDO Hoper Conservation and Development Organization

Himal Rakshaks Mountain Guardians
HWC Human Wildlife Conflict
HYO Hope Youth Organization

ICIMOD International Centre for Integrated Mountain Development

ICSD Central Asian Interstate Commission on Sustainable Development

IRBM Integrated River Basin Management

INTERPOL International Criminal Police Organization

JDNP Jigme Dorji National Park

JJSNR Jigme Khesar Strict Nature Reserve JSWNP Jigme Singay Wangchuck National Park KCA Kangchenjunga Conservation Area

KCAMC Kangchenjunga Conservation Area Management Council

KCC Khangchendzonga Conservation Committee

KIU Karakoram International University
KNP Khangchendzonga National Park (India)

KP Khyber Pakhtunkhwa LDF Local development funds

LTDC Lachen Tourism Development Committee
METT Management Effectiveness Tracking Tool

MG Mothers Group

MoAF Ministry of Agriculture and Forests MoU Memorandum of Understanding

NABU Nature and Biodiversity Conservation Union (Germany)

NASA National Aeronautics and Space Administration

NGO Non-Government Organization
NRMG Natural Resource Management Group
NTNC National Trust for Nature Conservation
PARC Pakistan Agricultural Research Council

PWS Phibsoo Wildlife Sanctuary

PHPA Public Hearing and Public Auditing
PHE Sikkim Public Health and Engineering

RBA Royal Bhutan Army

RNR Renewable Natural Resource

RNR RDC Renewable Natural Resources Research and Development Center

RMNP Royal Manas National Park RTC Royal Thimphu College

SADCWO Shandur Area Development, Conservation, and Welfare Organization

SAWEN South Asia Wildlife Enforcement Network

SCAPES Sustainable Conservation Approaches in Priority Ecosystems

SIRD State Institute of Rural Development
SLCC Snow Leopard Conservation Committee

SLIMS Snow Leopard Information and Management System

SLF Snow Leopard Foundation SLN Snow Leopard Network

SLSS Snow Leopard Survival Strategy

SLT Snow Leopard Trust SPA Strictly Protected Area

Soum District, division of an Aimag (province)
TRAFFIC The Wildlife Trade Monitoring Network

TV Tele Vision
UG User's Group
UN United Nations

UNDP United Nations Development Program
UNEP United Nations Environment Program

US United States

USAID United States Agency for International Development

USD United States Dollar

UWICE Ugyen Wangchuck Institute for Conservation and Environment

VCC Village Conservation Committee VDC Village Development Committee VWG Village Wildlife Guard WCP Wangchuck Centennial Park

WCSDO Wildlife Conservation & Social Development Organization

WMD Watershed Management Division

WWF World Wildlife Fund

WWF-NL Worldwide Fund for Nature-Netherlands

ZWH Zero Waste Himalaya

#### I. SUMMARY OF ACTIVITY STATUS AND PROGRESS

#### a. Introduction:

This report covers activities for the third year (October 1, 2014 - September 30, 2015) of the Conservation and Adaptation in Asia's High Mountain Landscapes and Communities Cooperative Agreement (hereafter the "Asia High Mountains Project" or "AHM Project"). Under the USAID Leader with Associates Cooperative Agreement, WWF has facilitated technical and policy dialogue on management of Asia's high mountain landscapes and ecosystems in the face of a changing climate. WWF has also been helping prepare communities to address key vulnerabilities to climate change, conserve snow leopards as the flagship indicator species of Asia's high mountain landscape health, and implement practical and measurable demonstrations that advance a vision for water security and sustainable mountain development across Inner Asia. AHM Project activities focus on 6 of the 12 known snow leopard range nations, specifically Bhutan, India, Kyrgyzstan, Mongolia, Nepal, and Pakistan. All six of these nations are currently suffering from ecological threats such as overgrazing of alpine meadows, poaching and retaliatory killing of wildlife, declining availability of water resources, climate change impacts, and poorly planned infrastructure as well as other more localized issues. This report provides an update on the progress of this program. The Highlights section below summarizes some key activities and outcomes of each country program. The Activities section provides a detailed summary of activities and outcomes for each country program as well as for regional activities.

#### b. Highlights:

In AHM Project Year 3, highlights by country included the following:

#### Bhutan

- The Watershed Management Division (WMD) launched work on developing climatesmart watershed management plans for the Nikka Chu and Kuri Chu River basins in WCP. Upon completion, these plans will serve as models for improving water security in highland areas of Bhutan and be suitable for replication elsewhere in the Bhutan Himalaya.
- The Ugyen Wangchuck Institute for Conservation and Environment (UWICE) trained 25 environmental researchers and conservation workers on methods of hydrometeorological monitoring, data analysis, and data management as well as on use of this data for developing climate scenarios, vulnerability assessments, and adaptation strategies.
- Wangchuck Centennial Park (WCP) provided support to establish a snow leopard conservation committee in WCP's Western Range that will actively participate in snow leopard conservation, anti-poaching, wildife monitoring, and awareness raising activities in WCP.
- WWF completed a draft technical report on the landmark snow leopard camera trapping survey conducted in Wangchuck Centennial park from 2012-2014.

#### India

- WWF conducted a snow leopard camera trap survey covering 800 km<sup>2</sup> of North Sikkim that produced the first photographs of snow leopards ever taken in Sikkim.
- WWF worked with the Lachen Village council to educate 250 villagers and their families about sustainable caterpillar fungus harvesting practices.
- WWF completed a literature review and field survey for a climate vulnerability assessment of the Upper Teesta River basin focusing on the villages of Lachen and Lachung. The final vulnerability assessment report is currently being prepared.
- WWF, in cooperation with ECOSS and the Sikkim State Government, began work on developing a Tourism Policy for Sikkim that will be informed by AHM-funded ecotourism development activities in Sikkim.

### Kyrgyzstan

- WWF continued support for an extensive series of popular conservation awareness raising events marking international environment and other days, such as the annual "Land of the Snow Leopard" Festival held at the Sarychat-Ertash State Reserve which was attended by 167 local residents who participated in various snow leopard-themed drama, singing, art, and dance contests.
- WWF completed a climate change vulnerability assessment for the Central Tian Shan AHM Project region of Kyrgyzstan which will inform development of climate adaptation strategies for this region.
- WWF launched work on developing a climate-smart watershed management plan for the Chon Kyzyl Suu River basin by holding a series of village consultation meetings to assess water and natural resource issues in the basin.
- WWF continued to provide support for monitoring and protection of snow leopards and their prey species in the Sarychat-Ertash State Reserve.

#### Mongolia

- WWF completed a climate change vulnerability assessment for snow leopard range areas of western Mongolia that will be used as a basis for developing climate adaptation strategies for the region as well as for climate-smarting snow leopard conservation activities.
- Pasture management data bases were compiled for 5 soums (counties) in the AHM
   Project region of western Mongolia that will provide a scientific basis for developing
   climate-smart pasture management plans for these soums.

- A total of 1564 residents of the AHM Project region of western Mongolia were interviewed for a climate change social survey and the results were compiled into a report that will inform development of climate adaptation strategies for this region.
- An innovative anti-poaching program was launched at the Jargalant Khairkhan Mountain AHM Project Site where WWF worked with school eco-clubs to encourage families owning wildlife traps to exchange these traps for useful household items, with nearly half of an estimated 500 traps on the mountain being exchanged.
- As one climate adaptation strategy, WWF supported formal establishment of the 105,200 ha Bayan Nuruu Reserve Pasture in Darvi Soum (county), Khovd Aimag (province) which will remain closed to livestock grazing except during times of natural disasters, such as deep snowfalls. During natural disasters, this reserve will be temporarily opened to livestock herders as an emergency grazing reserve.

#### Nepal

- Monitoring of two snow leopards fitted with satellite GPS collars continued in the Kangchenjunga Conservation Area (KCA), providing detailed information on snow leopard movements and habitat use in the KCA that will be used to improve design of future wildlife conservation activities in the Kangchenjunga Region.
- As part of a broader climate adaptation strategy for the KCA, WWF helped improve the livelihood security of 5 KCA farming villages by introducing improved irrigation systems, greenhouses for growing vegetables in winter, and promoting cardamom as a cash crop.
- WWF supported bridge, trail, and water delivery improvements at remote dis-used
  mountain pastures in the KCA, resulting in 1000 ha of pastures being returned to use
  in local rotational livestock grazing patterns. This will reduce grazing pressure on all
  pastures in the activity area, contributing to increased resiliency of these pastures to
  climate change impacts.
- WWF continued to build the capacity of KCA residents to participate in a variety of conservation and community development activities in the KCA, resulting in increased community support for and participation in these activities in the KCA.

#### Pakistan

 WWF and a variety of partners continued support for a series of popular conservation awareness raising events marking international environment days, such as World Environment Day, in which several thousand people participated. This increased participants knowledge of various conservation and environment issue affecting northern Pakistan.

- WWF completed a draft climate vulnerability assessment for the AHM Project region of northern Pakistan that will inform development of climate adaptation strategies for this region.
- WWF launched work on developing climate-smart watershed management plans for two small river basins in the AHM Project region by conducting initial watershed surveys of planned sites that included stakeholder consultations and an examination of the impacts of climate change, deforestation, and pasture degradation on local watersheds and water provision.
- WWF continued efforts to improve watershed and pasture management by planting trees and fodder crops on degraded lands and establishing a grazing set aside closed to livestock grazing as part of a broader climate adaptation strategy for the AHM Project region.

## **Regional Highlights**

- WWF completed and released two reports on climate change titled "Climate Vulnerability in Asia's High Mountains" and "Guardians of the Headwaters: Snow Leopards, Water Provision, and Climate Vulnerability" as well as launching the companion "Third Pole Geolab" website to present findings of these reports.
- WWF provided support for the Bhutan International Glacier Symposium organized by the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) which brought together experts on Himalayan glaciers from Bhutan, India, Europe, and the United States to share recent research findings and discuss plans for upcoming research in Bhutan and elsewhere in the Himalaya.
- WWF continued to provide support to the Global Snow Leopard and Ecosystem
  Protection Program (GSLEP) Secretariat in Bishkek by donating computer equipment,
  providing partial funding for the first GSLEP Secretariat steering committee meeting,
  and planning upcoming climate-smart snow leopard landscape management plan
  trainings and demonstrations in support of GSLEP implementation.

#### c. Challenges:

In AHM Project Year 3, challenges by country included the following:

#### **Bhutan**

In Bhutan in AHM Project Year 3, one large challenge was a lack of interest from communities in Chokhor Geog in Wangchuck Centennial Park's (WCP) Central Range in participating in the UWICE-led climate-smart village activity, which resulted in a delay in starting this activity due to the need to find another location for it. A second challenge was the lack of interest on the part of nomadic yak herders in WCP in participating in a predator-proof corral demonstration as planned since these herders shift camp at far more rapid rates than their counterparts elsewhere in snow leopard range.

#### India

In India in AHM Project Year 3, one large challenge that slowed project progress was summer flooding that cut off access to project sites. A second challenge was simply a lack of local people to participate in wildlife conservation activities in high altitude areas of Sikkim as the population of these areas continues to decline.

#### Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, one continuing challenge has been deteriorating relations between the Kumtor Gold Mine and local communities which has put all cooperation on substantive conservation issues with Kumtor on hold. A second ongoing challenge has been community opposition to the planned Khan Tengri National Park, which has put all AHM activities planned for that area of the Central Tian Shan on indefinite hiatus.

## Mongolia

In Mongolia in AHM Project Year 3, one large challenge to snow leopard conservation has been the persistent illegal use of steel animal traps by locals at the AHM Jargalant Khairkhan Mountain project site. Although designed for catching small mammals such as marmots, in AHM Project Year 3, WWF camera traps documented two snow leopards that have lost feet to these traps. As always, another pervasive challenge is the harsh environment in the AHM project region of western Mongolia, which limits the ability of WWF staff to conduct field activities during the long Mongolian winter.

## Nepal

In Nepal in AHM Project Year 3, by far the largest challenge to AHM Project was the April 25, 2015 earthquake, which in Kathmandu severely damaged city infrastructure, WWF offices, and the homes of WWF staff members. At the AHM Kanchenjunga Conservation Area (KCA) project site, the earthquake damaged long stretches of trail and bridges along the main trekking route into the KCA. Earthquake damage in both Kathmandu and the KCA led

to long delays and postponement of many AHM activities planned for the summer and autumn of 2015. A second major challenge was an unusually large snowfall in the KCA in December 2014 which brought about a premature end to WWF's autumn snow leopard collaring expedition.

#### **Pakistan**

In Pakistan in AHM Project Year 3, perhaps the largest challenge was the severe flooding that occurred at AHM Project sites in Chitral in July and August 2015. This flooding washed away bridges and prevented access to AHM Project sites, causing delays in implementing activities and notably washing out one entire fodder crop planting site in the Rumboor Valley.

## Regional

In AHM Project Year 3, one large regional challenge was the termination of the World Bank's Global Tiger Initiative, which ended a large source of financial and organizational support for GSLEP Secretariat activities that will now need to come from as yet to be determined alternative sources. A second regional challenge has been further staff turnover at TRAFFIC combined with a lack of wildlife trade data from the Central Asian states that has continued to delay completion of the snow leopard trade report.

#### d. Adaptive Management in Action:

In AHM Project Year 3, adaptive management actions by country included the following:

#### Bhutan

In Bhutan in AHM Project Year 3, adaptive management measures included moving the location of the planned climate-smart village activity from Wangchuck Centennial Park's (WCP) Central Range to WCP's Eastern Range due to a lack of farmer interest at the originally planned site. In response to the lack of interest in predator proof corrals, yak herders proposed building of centralized bear-proof food storage stations to prevent loss of livestock produce and other food stuffs to frequent raids by Asiatic black bears.

#### India

In India in AHM Project Year 3, adaptive management measures included shifting an ecotourism pilot site originally planned for East Sikkim to Lachen in North Sikkim where it was deemed to be more appropriate.

#### Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, due to a lack of progress in establishing the planned Khan Tengri National Park in the Central Tian Shan, WWF instead undertook activities to improve protection of the Chon Kyzyl Suu River basin, including exploring options for establishing a protected area to improve protection of this remarkable valley.

#### Mongolia

In Mongolia in AHM Project Year 3, one adaptive management measure undertaken to protect snow leopards was partnering with school eco-clubs to start up of a wildlife trap exchange program to reduce the number of illegal wildlife traps being actively used at the AHM Jargalant Khairkhan project site.

### Nepal

In Nepal in AHM Project Year 3, in response to infrastructure damage in the Kangchenjunga Conservation Area (KCA) caused by the April 2015 earthquake, WWF and partners immediately undertook trail and bridge repairs to re-open the main trekking route for local residents and their livestock as well as for tourists.

#### **Pakistan**

In Pakistan in AHM Project Year 3, in response to severe summer flooding, WWF and partners conducted disaster relief work, distributing food and other household items to needy families in the AHM Project region of Chitral District.

# Regional

In AHM Project Year 3, adaptive management with respect to regional activities has primarily focused on working with SLT and other GSLEP partners to seek out new sources of funding for GSLEP Secretariat activities since the termination of the World Bank's support for the Global Tiger Initiative (GTI).

#### II. STATUS UPDATES: AREAS OF PROGRESS AND SUCCESSES

#### a. Key Short and Long-term Program Objectives:

The goals of the Asia High Mountains Project are to galvanize greater understanding and action at local, national, and regional levels across the snow leopard range states to conserve this iconic and endangered species, and to connect snow leopard conservation to a broader set of environmental, economic, and social issues with consequences for Asia's future sustainable development, namely local livelihoods, water and food security, and climate change adaptation.

The AHM project is directly working with six of the twelve snow leopard range states in both the northern and southern half of the species' range as well as engaging the remaining six nations in dialogue on conservation strategies and approaches for protecting this species. Short term objectives under this project include enhancing community participation in conservation, improving local natural resource management, conserving the snow leopard and its habitat in priority sites, improving enforcement of wildlife trade laws in snow leopard range areas, facilitating discussions on snow leopard conservation and climate change among the range countries, and creating a range-wide network for snow leopard conservation with the participation of both government agencies and local communities. Primary long term objectives under this project are to increase the resiliency of communities in snow leopard range areas to climate change impacts and to launch the beginnings of an alliance for protection of Asia's high mountain landscapes.

#### b. Summary of Progress for the Individual Project Sites:

Summaries of progress in AHM Project Year 3 at each of the six project countries as well as at the regional scale are given below:

#### **Bhutan**

In Bhutan in AHM Project Year 3, the staff of Wangchuck Centennial Park (WCP) undertook a variety of conservation activities in WCP; including holding an International Snow Leopard Day celebration for five schools, establishing three water users associations to protect local water source areas; conducting springshed protection and improved water delivery activities in two villages; conducted bridge repairs along a major trekking route used by tourists, herders, and livestock; establishing a new community snow leopard conservation committee to participate in conservation activities; constructing bear-proof food storage facilities for local nomadic yak herders to safely store their livestock produce and other foodstuffs; and providing partial support for erecting an electric fence around agricultural fields in one village in western WCP that has suffered large crop damage caused by local wildlife in recent years. The Ugyen Wangchuck Institute for Conservation and Environment (UWICE) conducted a preliminary survey on water scarcity and selected a site for a planned climatesmart village demonstration in WCP, conducted three climate adaptation trainings for government extension agency workers and local farmers, and conducted a hydrometeorological monitoring and data analysis and management training for government conservation workers. The Watershed Management Division (WMD) initiated the process of preparing climate-smart watershed management plans for two river basins in WCP by holding a series of stakeholder consultation meetings, conducting a rapid watershed

assessment, and conducting a climate vulnerability social survey in the two project basins. In total, WCP, UWICE, and WMD are cooperating on improving land management practices in WCP with respect to agricultural, grazing, and other natural resource management activities so that these practices are climate-smart and improve local water security.

#### India

In Sikkim in AHM Project Year 3, WWF supported a sustainable caterpillar fungus harvesting campaign; conducted a climate vulnerability assessment of the upper Teetsa River basin that will guide further development of local adaptation strategies; held an environment camp for local teachers; continued training of local citizen scientists to participate in wildlife monitoring; worked to build capacity of tourism industry workers, improve sustainability of tourism activities, and develop a tourism policy for Sikkim; trained local residents on improved trash disposal and making of biobriquettes to reduce fuel wood cutting; and continued wildlife monitoring activities, including conducting the first snow leopard camera trap survey in Sikkim. In total, these activities are improving protection of biodiversity in Sikkim and improving the sustainability of the Sikkim's large ecotourism industry, which is a major source of alternative income for residents and one effective climate adaptation strategy for reducing dependence on the local natural resource base.

## Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF continued a series of popular conservation awareness raising events to mark international environment days in rural communities and increase local participation in conservation activities; completed a climate vulnerability assessment for eastern Kyrgyzstan that will guide further development of adaptation strategies; began the process of developing a climate-smart watershed management plan for the Chon Kyzyl Suu River basin that will focus on farming, livestock herding, and woodcutting activities; continued a trial rotational pasture management activity using a demonstration yak herd as one climate adaptation strategy for increasing the resilience of alpine grassland ecosystems; promoted development of alternative income generating activities to livestock raising and sale of meat, such as handicraft production and marketing; and continued snow leopard and prey species monitoring in the vicinity of the Sarychat-Ertash State Reserve, including collection of scat samples for DNA analysis. In total, these activities-form part of a broader climate adaptation strategy for the region that will focus on improving management of protected areas and mountain pastures.

#### Mongolia

In Mongolia in AHM Project Year 3, WWF supported a one-week children's eco-camp to start training the next generation of Mongolian conservationists; continued to support a number of school eco-clubs in the AHM Project region, including supporting a school eco-club anti-trapping campaign; compiled pasture management data bases for five soums (counties) in western Mongolia; completed a climate change social survey amongst 1564 people in snow leopard range areas of western Mongolia; completed a broad climate vulnerability assessment for snow leopard range areas of western Mongolia; worked with

government and NGO partners on developing a human-snow leopard conflict management strategy for Mongolia; promoted ecotourism and the production and marketing of handicrafts as alternative sources of income to livestock herding; supported the establishment of a 105,200 ha emergency reserve pasture that will be closed to all livestock grazing except during natural disasters, such as snow emergencies; and continued citizen scientist trainings and snow leopard research, such as snow leopard camera trap surveys and monitoring snow leopard movements using satellite GPS tracking collars. In total, these activities constitute a multi-prong approach to climate smart management of snow leopard landscapes that address basic wildlife conservation, vulnerability of rural livelihoods to climate change impacts, and improved management of grassland ecosystems for the benefit of both people and wildlife.

#### **Nepal**

In Nepal in AHM Project Year 3, WWF supported conservation activities in the Kangchenjunga Conservation Area (KCA) that included ongoing implementation of village climate adaptation strategies, including introduction of lined irrigation canals, sprinkler irrigation, greenhouses for growing vegetables in winter, and promotion of cardamom as a cash crop; improving rotational grazing rates by improving access to remote pastures by repairing trails and bridges to these pastures; supporting development of a sustainable essential oil enterprise to fund village conservation and development activities; continued training of citizen scientists and snow leopard monitoring using both camera traps and satellite tracking collars; and continued support for the KCA Management Council in the form of training and donation of computers. Although it was planned to begin developing a climate-smart watershed management plan for the KCA in the summer of 2015, this work was largely delayed until AHM Project Year 4 due to the April 2015 earthquake and subsequent relief efforts, which included repairing 3.5 km of trail and two bridges along the main trekking route into the KCA that were damaged during the earthquake. In total, these activities seek to improve climate-smart management of livelihood activities and ecosystems in the KCA while improving community participation in snow leopard conservation work.

#### **Pakistan**

In Pakistan in AHM Project Year 3, WWF activities included providing support for a popular series of conservation awareness raising events that reached thousands of participants with messages about wildlife conservation, climate change impacts, climate change adaptation, and improved methods of water and natural resource management; providing training and support to village conservation committees (VCC) on conservation planning, conducting conservation activities, and VCC office setup and management; developing a draft climate vulnerability assessment for the AHM Project Region of northern Pakistan; conducting an initial watershed survey as a first step in developing climate-smart watershed management plans for 2 small river basins at AHM Project sites; improving water security in AHM Project communities by building of an improved clean water delivery and storage system for one village and improving an irrigation system serving 2 other villages; establishing a 396 ha grazing set aside as one method for improving pasture management for the benefit of both people and wildlife; conducting tree and fodder crop planting activities on degraded land to improve both watershed management and security of rural livelihoods; supporting handicraft training and marketing as an alternative income generating activity to farming and herding;

and continuing support for snow leopard conservation activities such as training and supporting village wildlife guards, training citizen scientists, and conducting snow leopard and prey species monitoring surveys. Notably, summer work planned on developing climate-smart watershed management plans was largely delayed due to severe flooding that cut access to project sites. In total, these activities being conducted at AHM Project sites in northern Pakistan serve as an evolving climate adaptation strategy for mitigating climate change impacts on rural herding and farming livelihoods, increasing water security, and improving the resilience of ecosystems and biodiversity to climate change impacts.

# Regional

Regional activities supported by WWF in AHM Project Year 3 included providing support for holding the Bhutan International Glacier Symposium; completing 2 major reports on climate vulnerability and water provision in snow leopard range areas as well as a companion website presenting findings of these reports; conducting a half-day technical seminar on climate change impacts on snow leopard range areas and water resources as part of a broader AHM mid-project learning and sharing meeting; continuing to share successes of the AHM Project with respect to snow leopard conservation and climate adaptation at meetings of the Central Asia Interstate Commission on Sustainable Development and other working groups in Central Asia; continuing further work on updating the new edition of TRAFFIC's snow leopard trade report; continuing cooperation between INTERPOL and TRAFFIC on wildlife trade law enforcement in snow leopard range areas; providing continued support for the Snow Leopard Network Snow Leopard Conservation Grants program; and providing continued support to the Global Snow Leopard and Ecosystem Protection Program (GSLEP) secretariat for holding meetings and office setup. In addition, it should be noted that this reporting period saw the official release of the second edition of the Snow Leopard Survival Strategy which had input from AHM-supported WWF staff, particular with respect to climate change.

#### c. Activity Descriptions

Objective 1: Promote climate-smart management of high mountain landscapes and snow leopard habitat for sustainable development in specific sites.

The approach to achieving Asia High Mountains Project Objective 1 is four-part and involves striving to 1) strengthen capacity of local natural resource management organizations, 2) increase community and ecosystem resiliency to climate change impacts, 3) enhance community engagement in conservation, and 4) conserve the snow leopard and its habitat in priority sites. In AHM Project Year 3, good progress was made in all four areas. Country by country detailed activity descriptions follow.

#### **Bhutan**

<u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

<u>Activity 1.1.3:</u> Provide technical support for local associations and NGOs to conduct awareness raising activities regarding sustainable natural resource management and use. (Countries: B, K, M, N)

### Country: Bhutan (1.1.3a)

In Bhutan, WWF provided support to Wangchuck Centennial Park (WCP) to celebrate International Snow Leopard Day on October 23, 2014. This event was attended by approximately 500 students from four primary schools located within WCP (Zhabjethang Community Primary School, Kharsa Community Primary School, Dhur Community Primary School, and Zangtherpo Primary School) and was held at Zangtherpo Primary School in Chokhortoe, Bumthang. The day-long program began with a traditional Buddhist marchang ceremony giving thanks for blessings to all sentient beings followed by a welcome speech by WCP's chief forestry officer on the importance of International Snow Leopard Day and current threats to snow leopards, including both direct threats and indirect threats such as climate change. The day's events included a lecture on snow leopard behavior and ecology; a lecture on current WWF-funded snow leopard survey work in WCP; a camera trap demonstration; snow-leopard themed quiz, debate, and poster contests that pitted school teams against each other, and a school volley ball contest. In addition, all participating students received snow leopard postcards and notebooks containing information on snow leopards. Other guests in attendance included the director of the Ugyen Wangchuck Institute of Conservation and Environment (UWICE), local leaders, school principals, teachers, and park staff.

- 500 students from WCP were educated about snow leopard ecology and threats to snow leopards.
- Community awareness of and participation in snow leopard conservation activities in WCP increases.

#### Country: Bhutan (1.1.3b)

In Bhutan, a second International Snow Leopard Day Celebration was held on November 4, 2014 in Haa, the gateway community to the Jigme Khesar Strict Nature Reserve (JKSNR) (formerly the Toorsa Strict Nature Reserve), which was organized by JKSNR staff. The honored guest at this event was the speaker of Bhutan's National Assembly, Lyonpo Jigme Zangpo. This event was attended by over 600 students, teachers, government, and community members. Activities at the Haa event included speeches on the need to protect snow leopards and their habitat, a snow leopard quiz contest, ecological theatre, a children's drawing contest, an educational environmental protection exhibit, and traditional Bhutanese dancing. This event was funded with AHM Project co-financing from WWF International and the WWF Bhutan EcoLife Project, and it received extensive coverage by the Bhutanese media.

- 600 students, teachers, government, and community members educated about snow leopard ecology and threats to snow leopards.
- Attendance by a high-level government representative and local media raise awareness and the profile of snow leopard conservation activities in communities surrounding Haa as well as nationally.

#### **Sub-objective 1.2:** Increase community resiliency to climate change impacts.

<u>Activity 1.2.1:</u> Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards.

#### Country: Bhutan (WCP) - 1.2.1A

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) worked in cooperation with the local governments of Nubi, Sephu, and Chokhor Geogs in May and June 2015 to establish three water user associations (WUA) to protect and manage local drinking water sources. These WUAs will also be responsible for periodic maintenance of local water source catchments areas, such as by erecting and repairing fences to keep livestock out of water source catchments areas and planting trees and vegetation in these areas as needed to maintain water provision. In total, 26 households have agreed to take part in these WUAs, 13 householdsin Simphu Village, Sephu Geog; 9 households in Thangyul Village, Nubi Geog; and 4 households in Mangdiphu Village, Chokhor Geog.

#### Outputs/Results:

• Cooperation on collective management of village water resources is established and sustainable management of local water sources is improved.

#### Country: Bhutan (WCP) - 1.2.1B

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) conducted springshed protection activities in two villages in WCP from May 18-29, 2015. The first springshed protection activity was conducted in Lungsepong Village in Chokhor Geog in WCP's Central Range. At Lungsepong Village, villagers erected a fence to protect the local springshed from grazing livestock and trees were also planted in bare areas to improve runoff infiltration. An HDPE pipe was installed to deliver water from a spring source to a high altitude village of 13 households. Farmers dug several water ponds for storing water for use by livestock as well as by wild mammals such as blue sheep. A second springshed protection and water delivery activity was carried out at Rabji Gonpa Village in Sephu Geog in WCP's western range. At Rabji, villagers also erected a fence to protect the local springshed from grazing livestock and planted trees in bare areas to improve runoff infiltration. Finally, an HDPE pipe was installed to deliver water from the source to the village of 10 households, which greatly improved water quality from the spring source.

#### Outputs/Results:

- 4 acres of village water source springsheds are protected and improved in 2 mountain villages in WCP.
- Clean drinking water is delivered to 23 households in these 2 villages.
- Villager participation in and ability to carry out natural resource management and climate adaptation activities in WCP is increased.

## Country: Bhutan (UWICE) - 1.2.1C

In Bhutan in AHM Project Year 3, the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) completed selection of a village for an initial climate-smart village

demonstration in September 2015. Although originally planned for Kharsa and Tangbi Villages in Chokhor Geog in Wangchuck Centennial Park (WCP), due to a lack of interest in the activity on the part of local farmers an alternative site needed to be selected, which is Shawa Village in Gangzur Geog in eastern WCP. Shawa village consists of 25 households with the main livelihood being crop farming. At Shawa, UWICE led a consultation meeting with the 28 farmers (12 women) and 6 staff members (All Men) of the Renewable Natural Resources extension office in Gangzur, the local Gangzur Geog government, WCP, and the Lhuentse District chief forest ranger. The purpose of this meeting was to explain the climatesmart village activity to participants. Activity baseline information was collected from local residents and a field visit with farmers was made. At this time, major climate impact and livelihood issues affecting Shawa Village were identified to be crop damage by wildlife; a shortage of drinking water; drying up of water sources; a shortage of vegetables in winter; declining of soil fertility; and a declining maize harvest. Given Shawa Village's general low incomes, high vulnerability to soil erosion and natural disasters such as landslides; and water shortages, a series of interventions under the climate-smart village activity were proposed by UWICE in consultation with local residents. These include improving protection and afforestation of the local water source catchment; improving water storage capacity; introduction of green house vegetable growing to improve nutrition in winter; promotion of composting of agricultural and household waste to increase soil fertility; implementation of improved soil and land management technologies, such as bio-hedges to reduce erosion of topsoil; and erecting an electric fence around of 6 acres of crop land to protect farmers' livelihoods against crop loss to wild boar, monkeys, deer, and other wildlife.

#### Outputs/Results:

- Shawa village was selected as an initial site for conducting a climate-smart village activity.
- Village baseline information was collected, and proposed actions agreed upon with local residents which will be conducted in AHM Project year 4.

#### Country: Bhutan (WMD) - 1.2.1D

In Bhutan in AHM Project Year 3, the Watershed Management Division (WMD) conducted climate vulnerability assessments for the upper Nikka Chu and Kuri Chu River basins as a first step in developing climate-smart watershed management plans for these basins. Both the climate vulnerability assessments and watershed management plans being developed for these areas will be used in guiding climate adaptation strategy development for these two basins. As a first step in this process, two dzongkhag-level (provincial-level) consultation meetings were held (Table 1).

The first dzongkhag-level consultation meeting was held from August 27-29, 2015 in the Phobjikha Valley in Wangdue Phodrang Dzonghkag and was led by 6 trainers from WMD. This meeting was attended by 32 People (4 Women) from Wangdue Phodrang and Trongsa Dzonkhags, including Renewable Natural Resource Extension Agency sector heads, staff of Wangchuck Centennial (WCP) and Jigme Singye Wangchuck National Parks (JSWNP), heads of Forest Department territorial divisions, dzongkhag health officials, dzongkhag environment officials, and staff of the Druk Green Power Corporation (DGPC). On the first day of this meeting, topics discussed included the role and responsibilities of WMD, an introduction to the Nikka Chu watershed management planning process, WMD's rapid watershed assessment protocol, general water resource accounting methods, and the planned

climate change vulnerability assessment survey for the Nikka Chu River basin. The second day of the meeting consisted of an all day field demonstration on using WMD's rapid watershed assessment protocol and field measurement of stream flow discharge. The third day of this meeting included a presentation on the planned Nikka Chu hydropower development project, group work on identifying important tributaries of the Nikka Chu, and training and planning for the planned Nikka Chu River basin rapid watershed assessment and climate change vulnerability survey (see agenda, Annex 3).

A second dzongkhag-level consultation meeting was held for stakeholders in the Kuri Chu River basin which was led by 6 trainers from WMD. This meeting was held on September 9, 2015 in Lhuentse Town, Lhuentse Dzongkhag. The consultation meeting was attended by 15 People (All Men) from Lhuentse Dzongkhag including staff of Forest Department territorial divisions, Renewable Natural Resource Extension Agency divisions, the Kurtoe and Gangzur Geog governments, and field staff from WCP's Eastern Range office. Topics of discussion at this meeting included an overview of WMD's roles and responsibilities, an introduction to the Kuri Chu watershed management planning process, climate change scenarios for Bhutan, WMD's planned rapid watershed assessment in the Kuri Chu basin, the planned climate change vulnerability assessment survey for the Kuri Chu River basin, and training and planning for carrying out the Kuri Chu climate change vulnerability assessment survey (see agenda, Annex 3).

**Table 1.** Watershed management plan dzongkhag-level consultation meeting participation.

Date	Location	Number of	Number of
		<b>Participants</b>	Women
August 27-29, 2015	Phobjikha Village, Wangdue Phodrang Dzongkhag (included participants from Trongsa Dzongkhag)	32	4
September 9, 2015	Lhuentse Town, Lhuentse Dzongkhag	15	0
Totals		47	4

As a second step in this process, WMD organized and led four geog-level (county-level) consultation meetings in September 2015 (Table 2). These meetings were held in Sephu and Tangsibji Geogs in the Nikka Chu River basin and in Gangzur and Kurtoe Geogs in the Kuri Chu River basin. In total, 116 People (23 Women) attended these four meetings, including local geog Renewable Natural Resource Extension Agency staff, various geog and village leaders, and chairmen and members of local farmers' groups. Topics of discussion at these meetings included an overview of WMD's roles and responsibilities; an overview of the watershed management planning process for the Nikka Chu and Kuri Chu River basins; climate change scenarios for Bhutan; group natural resource mapping, hazard mapping, seasonal calendars, and climate vulnerability matrix rankings for local chiwogs (village clusters); and an overview and planning for field visits to chiwogs for conducting both rapid watershed assessments and climate change vulnerability assessment interviews (see agendas, Annex 4).

**Table 2.** Watershed management plan geog-level consultation meeting participation.

Date	Location	Number of Participants	Number of Women
September 1, 2015	Sephu Geog, Wangdue Phodrang Dzongkhag	23	3
September 10- 11, 2015	Gangzur Geog, Lhuentse Dzongkhag	34	4
September 15, 2015	Tangsibji Geog, Trongsa Dzongkhag	24	11
September 17- 18, 2015	Kurtoe Geog, Lhuentse Dzongkhag	35	5
Totals		116	23

As a third step in the watershed management planning process, 3 chiwog-level (village cluster-level) meetings were held in September 2015 in three villages in Gangzur Geog in the Kuri Chu River basin (Table 3). The main objective of these chiwog-level meetings was to inform local farmers about the upcoming climate vulnerability assessment and watershed management plan, farmer interviews for the vulnerability assessment, and likely follow-up interventions to be carried out based on the forthcoming vulnerability assessment and watershed management plan. These three meetings were attended by 93 People (72 Women).

**Table 3.** Watershed management plan Chiwog-level consultation meeting participation.

Date	Location	Number of Participants	Number of Women
September 12, 2015	Ngar and Jang Villages, Gangzur Geog, Lhuentse Dzongkhag	20	16
September 14, 2015	Nye Pema Chen Village, Gangzur Geog, Lhuentse Dzongkhag	60	44
September 16, 2015	Zhamling & Thrima village, Gangzur Geog, Lhuentse Dzongkhag	13	12
Total		93	72

As one result of the above consultation meetings, 34 People (6 Women) were trained to conduct climate change vulnerability assessment interviews using a survey questionnaire prepared by WMD. These trainees included staff of geog government administrations and WCP (9 People); JSMNP (1); Renewable Natural Resource Extension offices (11); Forest Territorial Divisions from Wangdue Phodrang, Zhemgang, and Mongar Dzongkhags (7); and WMD (4). For this survey, households in the Nikka Chu and Kuri Chu River basins were randomly selected to participate. Trained survey takers used a structured survey questionnaire form for conducting interviews at all households selected. The questionnaire contained sections on the respondent's background, household livelihoods and income, local awareness and perception of climate change, and recent changes in biodiversity. The survey also contained a section on local natural, physical, financial, and social systems and respondents suggestions for coping with and adapting to climate change impacts.

In the Nikka Chu River basin, the climate vulnerability assessment survey was carried out September 2-14, 2015 in Sephu Geog, Wangdue Phodrang Dzongkhag, where a total of 108 farmers (45 Women) from 17 villages were interviewed, and also in Tangsibji Geog, Trongsa

Dzongkhag, where a total of 36 farmers (14 women) from 5 villages were interviewed. In the Kuri Chu River basin, the survey was carried out September 10-28, 2015 in Gangzur Geog, Lhuentse Dzongkhag, where a total of 100 farmers (64 Women) from 15 villages were interviewed, and in Kurtoe Geog, Lhuentse Dzongkhag, where a total of 45 farmers (13 Women) from 15 villages were interviewed. In total, 289 farmers (136 Women) from the above four geogs were interviewed, of whom 63.5 percent reside within the boundaries of Wangchuck Centennial Park while the remainder reside in the buffer zone of WCP.

In addition to the farmer survey, focus group discussions were also held with selected key informants from the survey areas to validate the information gathered by the household questionnaires. These key informants were selected based on their experience and knowledge of community livelihoods and climate change impacts and included village elders, local leaders, and local government staff. These focus group discussions were also used to gather further information through participatory natural resource mapping, climate hazard mapping, seasonal calendar, and climate vulnerability ranking exercises. Two focus group discussions were conducted in Sephu and Tangsibji geogs in September 2015. In Sephu geog 9 key informants (All Men) participated while in Tangsibji geog 12 key informants (2 Women) participated. Results of the climate vulnerability assessment survey are currently being analyzed and compiled and a survey report will be forthcoming in the winter of 2016.

#### Outputs/Results:

- Awareness of climate change impacts on the Nikka Chu and Kuri Chu River basins raised amongst over 300 farmers and government workers residing in the vicinity of Wangchuck Centennial Park.
- Local perceptions of climate change impacts on the local environment, water and natural resources, and livelihoods are better understood.
- Awareness is raised of possible climate change adaptation strategies suitable for the study area, particularly with respect to agriculture and water resources.
- Climate vulnerability assessment reports for these two basins are currently being compiled and will be used to inform development of watershed management plans for these two basins.

Activity 1.2.2: Work with local institutions (e.g. agricultural extension offices, local resource user groups, and herder groups) to promote best land management practices, and enhance crop productivity and climate resilience through rainwater harvesting, small-scale storage, and drought and pest-tolerant crops.

#### Country: Bhutan (WCP) - 1.2.2A

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) worked in cooperation with the Ugyen Wangchuck Institute of Conservation and Environment (UWICE) and WWF Bhutan to conduct a climate change adaptation training for Rural Natural Resource Extension agency (agriculture, livestock, and forest) workers, local basic health units (village medical clinics) and teachers. This training was conducted from June 15-18, 2015 at UWICE in Lamai Goempa Village, Bumthang and successfully trained 38 People (5 Women) (see agenda, Annex 5). Topics discussed during this week-long training included: understanding climate change and its impacts; climate change mitigation and adaptation;

identifying climate adaptation options with respect to physical infrastructure, livelihoods, and bioengineering such as afforestation work; mainstreaming climate adaptation into development plans; and climate change-induced disasters and disaster management. A major goal of the training was to develop an initial list of climate adaptation options for the WCP region that both prioritizes the highest risk impacts and takes into account current deficiencies in adaptive capacity and climate change policy. Workers trained are now better able to identify local climate change impact issues and develop strategies for addressing these issues that incorporate both technological and traditional practices.

#### Outputs/Results:

- 38 participants (5 Women) from the WCP area are trained on climate change and its impacts, climate adaptation strategies and interventions, and climate-related disaster management.
- Participants are now better able to mainstream climate adaptation into work activities and development planning, particularly with respect to natural resource management.

#### Country: Bhutan (UWICE) - 1.2.2B

In Bhutan in AHM Project Year 3, the Ugyen Wangchuck Institute of Conservation and Environment (UWICE) conducted a water scarcity survey in the upper Chamkhar Chu watershed of Chokhor Geog (county) in Wangchuck Centennial Park. This survey was conducted from May 19-29, 2015 in all the five chiwogs (village clusters) of Chokhor Geog, namely in Nangisphel-Zangling-Zhabjethang, Dhur-Lusibee, Kharsa-Thangbi, Dawathang-Dorjibi-Kashingtsawa, and Pedtsheling-Tamshing Chiwogs. A total of 107 farmers (45 Women) were interviewed using structured questionnaire. For data triangulation purposes, focus group discussions (FGD) were held with Renewable Natural Resource Extension agency staff, village leaders, and older citizens to corroborate findings of the survey.

Findings of the water scarcity survey revealed that almost all of the surveyed households have a water tap with continuous year-round water flow next to their house while those who did not own a tap shared one with their neighbors, indicating that there is no shortage of drinking water for surveyed households at the current time. Regarding drinking water quality, most stated that water quality from their tap was generally good, although a few survey respondents stated that their tap water turns muddy following heavy downpours. Furthermore, survey findings confirmed that there is no drying-up of water sources occurring in Chokhor Geog at the present time and that there is no shortage of irrigation water for crops in the geog since the majority of farming is dry land farming with only limited rice paddy cultivation. Therefore, the geog appears to have sufficient drinking and irrigation water for local farmers at the present time.

- A water scarcity survey was conducted out in Chokhor Geog in WCP with 107 People (45 women) from 5 chiwogs participating and a survey report prepared.
- Findings of the survey revealed that there were no major shortages of drinking or irrigation water in Chokhor at the present time.
- As one result of the survey, UWICE has decided to shift a planned climate-smart village demonstration activity from Chokhor Geog to a water-stressed area of Gangzur Geog in Lhuentse Dzongkhag in eastern WCP.

• Climate change impact awareness was increased amongst the 107 respondents, and their socio-economic and livelihood status was documented.

#### Country: Bhutan (WMD) - 1.2.2C

In Bhutan in AHM Project Year 3, as a follow-up to an earlier rapid watershed assessment for the Kuri Chu River in eastern Wangchuck Centennial Park (WCP), the Watershed Management Division (WMD) conducted a rapid watershed assessment for the Nikka Chu River in western WCP in September 2015. The purpose of these watershed assessments was to classify the degree of degradation of individual tributaries and main river channels in these two watersheds. The findings of these assessments are currently being used as a basis for selecting demonstration watershed management planning sites and for designing watershed management activities themselves. Notably, the Nikka Chu River below WCP is slated to be the site of a planned hydropower development project. Prior to conducting the Nikka Chu rapid watershed assessment, consultation meetings and relevant trainings for project partners were conducted (see Activity 1.2.1D, above).

Following these consultation meetings, in September 2015 WMD staff travelled to the field and assessed 19 tributaries of the Nikka Chu River in Sephu Geog, Wangdue Phodrang Dzongkhag and 13 tributaries of the Nikka Chu in Tangsibji Geog in Trongsa Dzongkhag. Among other factors, the rapid assessment examined regularity of flow needed for drinking water, irrigation, and hydropower generation as well as the degree of watershed degradation. Of the 32 tributaries examined, 31 were classified as normal while one was classified as pristine. Two tributaries were categorized as critical by function in Sephu Geog, since these two were important sources of both drinking and irrigation water for their respective villages. One tributary is also categorized as critical by function as it is only drinking water source for over 80 households in Tangsibji Geog. Further detailed assessment will be conducted on selected tributaries for development of integrated watershed management plans.

#### Outputs/Results:

- A rapid watershed assessment of the upper Nikka Chu River basin was conducted as a first step in preparation of a watershed management plan for the basin.
- WCP, RNR Extension agency, and Forest Department territorial division staff received practical field experience in using WMD's watershed management classification system.
- Awareness of the watershed management planning process is raised amongst relevant stakeholders and communities.

# Activity 1.2.3. Promote climate-smart agricultural and grazing practices that maintain healthy pasture for livelihoods and wildlife (e.g. rotational grazing and controlled pastureland burning)

#### Country: Bhutan (WCP)

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) staff oversaw renovation of a bridge along an important travel route near Gomthang Village, Chokhor Geog in WCP's Central Range during June 2015. Renovation of this bridge ensures that local yak

herders maintain their seasonal mobility and rates of pasture rotation during the monsoon season, benefiting both high altitude pastures and herders and livestock themselves. The bridge will be used on a regular basis by 15 herding households and patrols of both the Royal Bhutan Army (RBA) and WCP staff. Construction of the bridge was assisted by labor donated by local herders and accompanied by lessons on the importance of conservation activities in WCP and the role of local herders in ensuring the success of these activities.

#### Outputs/Results:

- One bridge along an important trail in WCP is renovated ensuring continued mobility during the summer monsoon season of local herders, livestock, and patrols by both the RBA and WCP.
- Maintenance of the bridge ensures frequent pasture rotation and regular anti-poaching patrols with benefits for both mountain pastures and wildlife.
- 15 herding households directly benefit from bridge renovations, who at the same time increase their awareness of and support for conservation activities in WCP.

Activity 1.2.4: Organize local campaigns and workshops to raise awareness on climate change and adaptation actions in agriculture and herding, especially among indigenous, marginalized, and poor populations.

#### Country: Bhutan (UWICE)

In Bhutan in AHM Project Year 3, the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) conducted two 3-day climate change adaptation capacity development trainings for local farmers from Chokhor Geog in Wangchuck Centennial Park's (WCP) Central Range (see agenda, Annex 6). The first training was held from May 10-12, 2015 in Thangbi Village and was attended by 111 People (75 Women). The second training was held May 15-17, 2015 at Dhur Village and was attended by 73 People (43 Women). The main objective of this training was to raise awareness of climate change impacts and possible adaptation actions for agriculture and herding in central WCP. Topics of discussion at these meetings included an overview of climate change impacts on the WCP region, identifying climate change impacts, climate change impacts on water resources, and possible climate adaptation strategies for agriculture in the WCP region. Current climate change impacts reported by training participants included drying up of water sources, increased frequency of agricultural pest and disease outbreaks, and appearance of invasive plant species. In total 193 People (118 Women) from Thangbi, Kharsa, Goling, Nangsiphel, Chokhortoe, Dhur, and Lusbee Villages participated in these trainings.

- Awareness of local climate change impacts and possible adaptation strategies, particularly with respect to agriculture and livestock production, raised amongst 193 farmers and herders (118 women) from Chokhor Geog in WCP's Central Range.
- Farmers and herders in Chokhor Geog document local climate change impacts and their current coping strategies to deal with these impacts.
- Possible climate change adaptation actions appropriate for conditions in Chokhor Geog are discussed and compiled.

# Activity 1.2.5: Partner with University of Colorado to establish a system of monitoring and evaluation to test headwater ecosystem conservation efforts and downstream benefits for water supplies.

#### Country: Bhutan (UWICE)

In Bhutan in AHM Project Year 3, the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) organized a three-day hydro-meteorological monitoring and data management training from September 14-16, 2015 at UWICE in Lamai Goempa Village, Bumthang (see agenda, Annex 7). A total of 25 People (5 Women) attended the training, including climate focal persons from UWICE, Bumdeling Wildlife Sanctuary (BWS), Jigme Dorji National Park (JDNP), Wangchuck Centennial Park (WCP), College of Natural Resources (CNR), Royal Manas National Park (RMNP), Jigme Khesar Strict Nature Reserve (JJSNR), Renewable Natural Resources Research and Development Center (RNR RDC) Phibsoo Wildlife Sanctuary (PWS) and Royal Thimphu College (RTC). The objective of this training was to develop the capacity of Bhutanese on hydro-meteorological monitoring, data management and analysis, climate change monitoring, climate scenario development, and the use of hydro-meteorological data in development of climate change scenarios, vulnerability assessments, and adaptation strategies. Topics covered included hydro-meteorological parameters and instruments for climatic and hydrological monitoring, evaluating climate change, developing climate change scenarios, monitoring the cryosphere, and climate and water data sharing networks. Climate data from the UWICE phenology project was used for practice data analysis while practical sessions on climate and water data collection were conducted at local river gauge and hydro-meteorological stations in Jakar. This training was led by the Bhutan Water Partnership's National River Basin Modeling Project.

- 25 people (5 Women) were given preliminary training on hydro-meteorological monitoring, data management, data analysis, and climate change analysis.
- Participants' awareness of the use of data collected for developing climate change scenarios, vulnerability assessments, and adaptation strategies is increased.
- Participants will share lessons learned with other colleagues and students at their home institutions.

#### **Sub-objective 1.3: Enhance community engagement in conservation.**

Activity 1.3.1: Strengthen participation of local communities, (e.g. *Himal Rakshaks* – mountain guardians, herder groups, and SLCCs) in conservation of snow leopards and climate change adaptation activities in headwater ecosystems.

#### Country: Bhutan (WCP) – 1.3.1

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) conducted a snow leopard awareness raising program in Sephu Geog, Wangdue Phodrang Dzongkhag in WCP's Western Range from May 16-17, 2015. A total of 59 farmers and yak herders (30 Women) from Sephu Geog, Kazhi Geogs, and Thangyul Village in Nubi Geog participated in the awareness program, the main objective of which was to educate locals about snow leopard conservation activities in WCP. Topics discussed during the meeting included snow leopard ecology and its significance, human-snow leopard conflict, grazing conflict between domestic livestock and snow leopard prey species, poaching of snow leopards, and the need for residents of highland areas of WCP to become local citizen scientist to monitor and protect snow leopards. Participants were also briefed on Bhutan's laws against wildlife poaching and trade. As many participants are also caterpillar fungus collectors, participants were also told about the possible impacts of caterpillar fungus collection on snow leopards, their prey species, and habitat.

A follow-up meeting was held June 3-5, 2015 in Sephu Geog that led to the establishment of a second community-run snow leopard conservation committee (SLCC) in WCP. This SLCC has 30 founding members (13 Women) who are all yak herders from Somji and Khekha Villages in Sephu Geog. This SLCC will now actively participate in snow leopard and other conservation activities in WCP, such as anti-poaching, monitoring, and awareness raising activities. WCP has also assisted the newly established SLCC in development of conservation plan for Sephu Geog that will strive to improve conservation awareness among yak herders in WCP and to train them as citizen scientists to actively participate in WCP conservation activities. WCP will soon train new SLCC members on conducting anti-poaching patrols and trap and snare removal, citizen scientist monitoring of snow leopards and their prey species, and methods for reducing human-snow leopard conflict.

#### Outputs/Results:

- Awareness of the snow leopard's role in maintaining WCP's alpine ecosystems, current threats to snow leopards, and WCP snow leopard conservation initiatives are raised among residents of western WCP.
- Groundwork is laid for establishing an effective network of citizen scientists to monitor and protect snow leopards, their prey species, and habitat amongst nomadic livestock herders in the highland areas of western WCP.
- A new SLCC is established by 30 residents (5 Women) from Sephu Geog that will work with WCP to conduct anti-poaching, monitoring, and other conservation activities in WCP.

# <u>Activity 1.3.4:</u> Disseminate lessons and best practices for mitigating human-wildlife conflict with stakeholders and decision makers.

#### Country: Bhutan (WCP) – 1.3.4A

In Bhutan in AHM Project Year 3, although Wangchuck Centennial Park (WCP) had planned to build a demonstration predator proof corral, local herders felt this idea was impractical due to their frequent pasture movements. Instead, due to a high rate of incidence of Asiatic Black Bears raiding herders' huts in search of food, participating herders proposed construction of bear-proof food storage facilities at central locations where they store their personal foodstuffs and livestock produce such as butter and cheese to be sold in town. In this regard, May-June 2015, WWF supported building of trial bear-proof food storage facilities for 8 herding families in the Somji and Khekha areas of Sephu Geog, with WWF donating construction materials and the beneficiary herders providing labor.

#### Outputs/Results:

- Human-wildlife conflict between yak herders and Asiatic black bears in WCP is reduced through the construction of centralized bear-proof food storage facilities in in Sephu Geog that benefited 32 Herders (~16 Women) from 8 families.
- The threat of retaliatory killing of Asiatic black bears in WCP is reduced.
- Local herders are educated about methods for reducing all types of human-wildlife conflict in WCP and are enlisted to participate in other WCP conservation activities.

#### Country: Bhutan (WCP) - 1.3.4B

In Bhutan in AHM Project Year 3, Wangchuck Centennial Park (WCP) provided partial support to erect an electric fence in Thangyul Village, Nubi Geog, Trongsa Dzongkhag in August 2015. The purpose of this fence is to prevent annual large-scale crop damage caused by wild boar, Asiatic black bears, and other wildlife inhabiting WCP that has had a severe impact on farmer food and livelihood security in this village. 130 Farmers (60 Women) from 26 households are already benefitting from this activity. In exchange, beneficiary farmers have agreed to assist with WCP conservation activities, including working closely with WCP to keep park staff informed about suspected wildlife poachers seen entering WCP through the Thangyul Village. Co-financing for this fence was provided by the Nubi Geog administration while residents of Thangyul provided labor and were supervised by the involved fence installation technicians.

- An electric fence is installed around agricultural fields in Thangyul Village, Nubi Geog in WCP, sharply reducing a problem of extreme crop loss to WCP wildlife.
- As a result of this reduction in human wildlife conflict, farmer livelihood and food security improves in Thangyul.
- In exchange, beneficiary farmers agree to support conservation activities in WCP, including by actively reporting suspected poachers to WCP staff.
- The threat of retaliatory killing of WCP wildlife by farmers severely affected by crop loss is also sharply reduced.

#### Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.

Activity 1.4.1: Develop a monitoring protocol for selected field sites to assess abundance and distribution of snow leopards and their prey base using sign surveys, fixed-point counts, camera traps, and genetic analysis.

#### Country: Bhutan (WWF/WCP)

In AHM Project Year 3, WWF and Wangchuck Centennial Park (WCP) prepared a draft technical report on the findings of the 2012-2014 snow leopard survey of titled "Population Status and Distribution of Snow Leopard (Panthera uncia) in Wangchuck Centennial National Park, Bhutan." This report reviews field findings on the three phases of snow leopard camera trap, sign, and prey species surveys conducted in WCP's western, Central, and Eastern Ranges and also presents findings of snow leopard population modeling exercises conducted using various population models. The report is currently undergoing review by government partners in Bhutan and is expected to be released in the winter of 2016.

- One draft technical report produced on field and modeling findings of the 2012-2014 snow leopard survey of WCP.
- Report is currently under review by government partners in Bhutan.
- Report findings will eventually be summarized for publication in a peer-reviewed scientific journal.

#### India

# <u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

Activity 1.1.10: Work with tribe/community-based traditional resource management groups to build capacity for better resource management, including curtailing illegal hunting and extraction of wildlife resources, regulating free grazing near core snow leopard habitat, and watershed conservation.

#### Country: India

In India in AHM Project Year 3, WWF worked with the Lachen Village Dzumsa (village council) to prepare and distribute an educational brochure to community members on how to improve the sustainability of the local caterpillar fungus harvest. The brochure provides information the life cycle of caterpillar fungus, sustainable harvesting, minimizing human impact on high altitude caterpillar fungus meadows, and current regulations concerning caterpillar fungus collection. This brochure was distributed to about 250 community members (~20 Women) at an open meeting of the Lachen Dzumsa on July 18, 2015. Approximately 300 residents of Lachen Village harvest cordyceps each spring, of which approximately 40 are women.

- Sustainability of caterpillar fungus harvesting extraction practices are increased as a result of an information campaign by the Lachen Dzumsa and WWF.
- Capacity of local community members is increased with respect to local natural resource management and biodiversity conservation.

#### **Sub-objective 1.2: Increase community resiliency to climate change impacts.**

Activity 1.2.1 Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards.

#### Country: India

In India in AHM Project Year 3, WWF conducted a climate change vulnerability assessment of local communities and natural ecosystems in the upper Teesta River Basin in April and May 2015. This assessment targeted village-level stakeholders and attempted to improve understanding of the drivers of climate vulnerability, prioritise the most vulnerable systems for action, and propose initial actions to reduce vulnerability and enhance the resilience of these systems to climate change impacts. As an initial step in this process, a literature review was conducted to understand climate change impacts and projections for the regions around Lachen and Lachung Villages. This was followed by community consultations conducted in both Lachen and Lachung from April 12-17, 2015, where local farmers, tourism stakeholders, herders, government workers, and village elders provided their perceptions of changes in the local climate and its impacts (Lachen: 17 Participants (5 Women); Lachung: 13 Participants (3 Women)). Climate change impacts noted in both communities included increased frequencies of natural disasters, decreasing snow fall, and the appearance of new agricultural pests and diseases.

A focus group discussion was held on April 20, 2015 in Gangtok with community leaders from AHM Project sites and NGO representatives to gain a better understanding of the key areas affected by climate change and to conduct a ranking exercise to determine the degree of vulnerability of these key areas to climate change impacts (10 Participants, All Men). In addition, relevant block-level stakeholders, namely the Block Development Officer and 2 officials from the state Horticulture Department (All Men) were also interviewed for the assessment and areas of convergence for integration of state government and local climate adaptation plans were identified. A first draft of the climate vulnerability assessment has been completed, which helped inform design of AHM Year 4 activities in Sikkim. This assessment is currently being reviewed and will be finalized before the end of 2015.

- A draft climate vulnerability assessment has been prepared for the upper Teetsa River basin in north Sikkim.
- Understanding of key climate vulnerabilities in Lachen and Lachung Villages has been improved.
- A final vulnerability assessment is being prepared which will guide design of climate adaptation action in the AHM project region of Sikkim.

#### **Sub-objective 1.3:** Enhance community engagement in conservation.

# 1.3.1 Strengthen participation of local communities (e.g. *Himal Rakshaks*, herder groups, and SLCCs) in conservation of snow leopards and climate change adaptation activities in headwater ecosystems.

#### Country: India – 1.3.1A

In India in AHM Project Year 3, WWF, in cooperation with the Lachen Tourism Development Committee (LTDC), organized a three-day long environment camp for 20 teachers (7 Women) from 14 schools in North Sikkim on September 7-9, 2015 at Lachen. The main objective of the environment camp was to raise the awareness of teachers with respect to local environmental issues and to increase their knowledge of Sikkim's flora and fauna, with special emphasis being placed on the snow leopard. Teachers were also educated on biodiversity conservation initiatives in Sikkim, as well as climate change and its impacts and water conservation issues.

#### Outputs/Results:

- 20 teachers (7 Women) from 14 schools in North Sikkim are taught about environmental and water resource issues, flora and fauna, biodiversity conservation initiatives, and climate change impacts in Sikkim.
- Teachers learn how to conduct interactive activities such as games and field trips for teaching their students about the above issues.
- Awareness of conservation, environment, and climate change issues in Sikkim is raised amongst teachers and their students in North Sikkim.

## Country: India – 1.3.1B

In India in AHM Project Year 3, WWF provided a citizen scientist training on July 20, 2015 for three community members (All Men) from Lachen Village on conducting snow leopard monitoring surveys, including training on use of GPS units and installation and maintenance of wildlife camera traps. Since completion of their training, these three citizen scientists have been managing camera traps used in WWF's ongoing snow leopard camera trap survey in North Sikkim with regular support from WWF scientists.

#### Outputs/Results:

- Three citizen scientists (All Men) were trained on conducting snow leopard camera trap surveys.
- Awareness of snow leopard conservation issues and local participation in snow leopard conservation activities is raised in North Sikkim.

# Activity 1.3.2: Study the severity of livestock depredation and develop a comprehensive human-snow leopard conflict mitigation program (e.g. livestock insurance schemes).

#### Country: India

In India in AHM Project Year 3, as part of WWF's broader climate vulnerability assessment for North Sikkim, WWF staff interviewed 18 herders (6 Women) in high altitude areas of

Sikkim about human-wildlife conflict (HWC) issues from April 16–17, 2015 and July 18–26, 2015. Topics discussed during HWC interviews included local human-predator dynamics; the extent of livestock depredation by wild predators; specific human-wildlife conflict issues and possible solutions; and local attitudes towards wild predators, primarily snow leopards and wolves. Interviews also collected data on current livestock holdings of these herders. Preliminary findings showed that of 189 yak kills from 2014-2015, 152 yaks were killed by feral dogs, 30 were killed by snow leopards, and 7 were killed by wolves. Thus, feral dogs caused much larger loss of livestock than wild predators and are also a threat to local snow leopard species such as blue sheep and argali.

#### Outputs/Results:

- Extent of livestock loss to wild predators and feral dogs in North Sikkim is quantitatively assessed.
- Baseline estimates of livestock populations and stocking densities gathered for the study area of North Sikkim.
- Findings of these interviews will be used for developing strategies for reducing conflict between humans, wildlife and feral dogs, as well as for developing other climate adaptation strategies for the region.

# Activity 1.3.10: Provide alternatives to fuel wood including clean energy sources and more efficient fuel wood cook stoves to reduce adverse effects on forests.

#### Country: India

In India in AHM Project Year 3, WWF conducted a final bio-briquette making training in Lachung Village on September 11, 2015. 9 people (2 Women) participated in this training which was led by staff of WWF's Darjeeling field office, who also shared their experiences of working with communities around Darjeeling on conservation activities.

#### Outputs/Results:

- 9 People (2 Women) trained on the production and use of bio-briquettes as an alternative fuel source to firewood.
- Fuel-wood consumption is expected to be reduced amongst participating households.

# Activity 1.3.11: Promote sustainable Community Based Tourism (CBT) by strengthening existing initiatives of home stays and sustainable tourism practices, and engaging private sector, investors, and operators.

#### Country: India (1.3.11A)

In India in AHM Project Year 3, WWF, in partnership with the Sikkim State Department of Forests, Environment and Wildlife Management and the Khangchendzonga Conservation Committee (KCC) organized a consultation meeting on strengthening sustainable tourism activities in Khangchendzonga National Park (KNP). Participants were tourism stakeholders, primarily homestay operators and guides, who identified effective initiatives that have improved tourism practice in KNP, such as the ban on grazing, improved management of

trash along trekking routes, and regular capacity building trainings for tourism stakeholders. These participants then developed an action plan for improving the tourism experience along the Yuksam-Dzongri trekking route that reduces the impact of tourism on wildlife habitat, such as by requiring rotational grazing practices for livestock, having community members conduct regular monitoring along the trail, developing conservation awareness materials targeting both locals and tourists, and building the capacity of the local nature guides. This meeting was held\_at Yuksam, West Sikkim on December 18, 2014 and was attended by 61 People (5 Women).

#### Outputs/Results:

- 61 People (5 Women) participated in a tourism stakeholder workshop on the KNP, raising their awareness of sustainable tourism and conservation issues in the KNP.
- A draft action plan for improving the tourism experience along the Yuksam-Dzongri Trekking Trail is produced.

#### Country: India (1.3.11B)

In India in AHM Project Year 3, WWF and the Khangchendzonga Conservation Committee (KCC) conducted a two-day training in Lachen Village from December 22-23, 2014 on making handicrafts from waste and discarded material. Techniques for making different useful products from everyday household waste materials such as plastic wrappers, PET bottles, paper, etc. were taught while participants were also taught about the importance of trash segregation at the household level and the ill effects of improper disposal of trash and garbage. In total, 32 women attended the training and showed keen interest in learning more while participants planned to display their products at the next Lachen Village festival. The training was important in bringing women together to tackle the local trash problem and reducing the volume of waste that Lachen generates. This training was led by a resource person from the KCC.

#### Outputs/Results:

- 32 Women were trained on making crafts from household trash and had their awareness raised concerning solid waste disposal problems around Lachen.
- As a result of this training, solid waste disposal practices around the ecotourism center of Lachen are expected to improve.

#### Country: India (1.3.11C)

In India in AHM Project Year 3, WWF helped organize a meeting in Lachen on January 7, 2015 where the Lachen pipons (village leaders) and community members (25 Participants, 3 Women) decided to impose a village trash collection fee to support and promote village efforts to segregate community trash for re-use and recycling. This fee will be a monthly payment of 30 rupees per household and 100 rupees per hotel or shop. At the same time a solid waste management monitoring committee was established that includes dzumsa (village council) members, Buddhist monks, hotel association members, local police, WWF staff, and other community representatives for overseeing the solid waste management in Lachen. To support the ban on sale of bottled water in Lachen village that was implemented to reduce plastic waste, WWF assisted the Lachen Tourism Development Committee in preparing a

proposal for installation of a village water filtration system that was submitted to the Sikkim Public Health and Engineering (PHE) Department. Similarly, WWF also helped community representatives prepare a proposal for development of a nature interpretation center in Lachen that was submitted to the Sikkim Tourism Department.

#### Outputs/Results:

- A village-wide monthly trash collection fee is established in Lachen Village which
  has raised awareness of trash disposal issues in the village and is expected to increase
  trash segregation and recycling as well as improve solid waste disposal practices in
  general.
- The tourism experience at Lachen is expected to improve with improvements in solid waste disposal practices.

# Country: India (1.3.11D)

In India in AHM Project Year 3, WWF and the Ecotourism and Conservation Society of Sikkim (ECOSS) began drafting a tourism policy for Sikkim at the request of the Sikkim Tourism Department. This draft policy is being prepared through a participatory consultation process with various stakeholder groups who are providing their inputs. The first consultation was organized on March 3, 2015 in Gangtok for representatives of the hotel industry, with 15 people (5 Women) participating while a second consultation session was held on April 24, 2015 in Gangtok for tour company operators and taxi drivers, in which 25 people (5 Women) participated. Considerable progress was made towards completing this policy document and a first draft was submitted to the Sikkim Tourism Department for review on World Tourism Day on September 27, 2015.

#### Outputs/Results:

- A draft tourism policy for the state of Sikkim is developed through a participatory process.
- Sustainability of tourism practices in Sikkim are expected to improve as a result of eventual adoption of this policy.

#### Country: India (1.3.11E)

In India in AHM Project Year 3, WWF and the Ecotourism and Conservation Society of Sikkim (ECOSS) selected three homestay villages for implementing an ecotourism capacity building training program. These villages are Phadamchen Village, located on the edge of the Pangolaka Wildlife Sanctuary in East Sikkim; Kitam-Manpur Village, located on the edge of the Kitam Bird Sanctuary in South Sikkim; and Lachen Village, a gateway community to Khangchendzonga National Park (KNP).

From December 8-11, 2014, the Khangchendzonga Conservation Committee (KCC) conducted a training at the KCC headquarters in Yuksam Village for homestay operators from the Phadamchen area. Topics discussed at this training included homestay management; trash management; guest management; ecotourism concepts and best practices; and homestay service standards, hygiene, and sanitation. In addition, participants were also given practical lessons on cooking a varied menu and given a tour of working homestays in Yuksam Village. During the visits to homestays, participants were taught about aspects of homestay operations

such as check-in check-out procedures and local trash management regulations being implemented in the neighboring Khangchendzonga National Park. In total, 18 people (7 Women) from Phadamchen and neighboring villages participated in this training.

At Kitam, a preliminary meeting was held on March 7, 2015 with the participation of panchayats (local elected representatives) and potential homestay owners along with other community residents. The purpose of this meeting was to build support for AHM Project ecotourism activities and to learn more about ecotourism training needs. 22 people (10 Women) attended. On March 13, 2015, a follow-up ecotourism orientation meeting for homestay operators was held at Kitam, where 24 people (11 Women), all homestay operators, attended. At this time, a resource person from ECOSS spoke on the benefits and objectives of ecotourism, including improved nature conservation and economic benefits for local communities. An exercise was conducted to analyze the strengths and weaknesses of Kitam village with respect to ecotourism, which helped identify gaps and future opportunities. A tour of local homestays by participants was also conducted. Next, a training of homestay operators and cooks was held at Kitam on April 11, 2015 where 23 people (14 Women) were trained. This training was led by a trainer from the Institute of Hotel Management in Gangtok, who taught the participants on such key aspects of homestay management as bed making, room cleaning, toilet and kitchen hygiene, waste management, interaction with guests, security, accounting, and serving of food, as well as the fundamentals of cooking and preparation of basic dishes for tourists. The trainer also visited individual homestays in Kitam to evaluate guest room and toilet arrangements and provided advice for improvement. Following the training, homestays in Kitam Village successfully hosted 10 groups totaling 183 visitors on holidays organized by the Youth Hostel Association of India. These visitors gave favorable reviews of their homestay visits in Kitam, and YHA has already agreed to send more tourists in the winter of 2016. Finally, a promotional brochure for Kitam as a tourism destination was also developed and printed.

At Lachen Village, an ecotourism consultation meeting was held on September 10, 2015 that was attended by 46 people (7 Women). The objective of this meeting was to identify key ecotourism stakeholders in Lachen and possible tourism products for promotion as well as to develop an ecotourism action plan to guide development of the ecotourism industry at Lachen.

#### Outputs/Results:

- 41 people (21 Women) from Phadamchen and Kitam Villages in Sikkim receive training on various aspects of running ecotourism homestays.
- Residents of Phadamchen, Kitam, and Lachen Villages in Sikkim have their awareness raised about ecotourism sustainability issues.
- Ecotourism revenue is expected to increase in these villages as a result of training provided and increased promotion, providing local farmers with an alternative source of income.

#### Country: India - 1.3.11F

In India in AHM Project Year 3, WWF supported the Zero Waste Himalaya (ZWH) group in holding a mobile exhibition promoting the concept of zero waste, which featured informative and interactive poster displays, crafts corner and zero-waste-themed activities. During this reporting period, this exhibition was held in Jorethang, South Sikkim on October 20, 2014; in

Gangtok, East Sikkim from October 27–30, 2014; and in Mangan, North Sikkim from November 14-15, 2014. The State Institute of Rural Development (SIRD) and the state Rural Management and Development Department (RMDD) also provided support for the exhibition. The exhibition was visited by a large numbers of people, including students, teachers, and the general public, who learned about zero waste concepts, taking individual responsibility for one's own garbage management, and each person's responsibility as a consumer with respect to waste management. WWF also partnered with ZWH group and SIRD to follow up the exhibition by holding a local zero waste festival in Jorethang, South Sikkim from January 14-16, 2015, which raised awareness amongst the general public about garbage management issues and was conducted in a manner that demonstrated methods for generating as little waste as possible. In the summer of 2015, WWF also cooperated with ZWH volunteers to hold the "Plastic Bag Free Day" on July 3, 2015 in Gangtok and "Zero Waste Himalaya Days" on August 8, 2015, also in Gangtok and on August 15, 2015 in Lachen Village.

- Hundreds of people had their awareness raised regarding solid waste management issues and solutions.
- Government agencies provide support for the zero-waste exhibition, establishing a basis for future government-NGO cooperation on improving solid waste management in Sikkim.

#### Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites

Activity 1.4.1: Develop a monitoring protocol for selected field sites to assess abundance and distribution of snow leopards and their prey base using sign surveys, fixed-point counts, camera traps, and genetic analysis.

#### Country: India

In India in AHM Project Year 3, WWF launched a snow leopard camera trap survey in North Sikkim on July 20, 2015 by deploying 23 camera traps at 20 sites covering an area of approximately 800 km² area where they remained for 50 days. These traps were monitored at 20 day intervals by citizen scientists trained under Activity 1.3.1B, above. Initial survey results have produced the first camera trap photos of snow leopards ever taken in Sikkim. Once the field sampling ends, individual snow leopards will be identified from camera trap photos and a population density for snow leopards in the survey areas will be estimated. Snow leopard prey surveys will later be conducted with the assistance of Himal Rakshaks (mountain guardians) from Lachen Village.

#### Outputs/Results:

- The first camera trap photos of snow leopards ever taken in Sikkim are produced.
- Findings of the camera trap survey will be used to estimate snow leopard populations in North Sikkim and improve conservation efforts for these endangered cats.
- 2 local citizen scientists gain field experience in conducting snow leopard monitoring surveys.

Activity 1.4.6: Train local community members such as livestock herders to be citizen scientists conducting monitoring of snow leopard populations, prey species, and threats to snow leopards (e.g. poaching, retaliatory killing, and habitat degradation) and to conduct anti-poaching efforts through local SLCCs and other wildlife protection organizations.

#### Country: India

In India in AHM Project Year 3, WWF supported a combined wildlife monitoring survey and anti-poaching patrol by a team of 5 Himal Rakshaks (mountain guardians) (All Men) that covered an ecologically important 80 km² area of the Khangchendzonga National Park (KNP) and its buffer zone, namely the Chewabhanjang, Sikkim Gairey, Parey Meghu, Sikkim Dhoor, Kopchey, Sikkim Meghu, Haas Pokhri, Chilkey, Netham and Falekey areas. This activity was conducted from June 2-9, 2015. During this activity, the monitoring team found sign from such species such as red panda, Asiatic black bear, blue sheep, satyr tragopan, and blood pheasant, among others. The team also dismantled 10 wildlife traps and snares set by poachers and found evidence of illegal collection of a medicinal plant, *Paris polyphylla* (Nepali: Satuwa), which is a traditional treatment for fevers, headaches, burns, and wounds in Nepal. The team also noted habitat degradation resulting from overgrazing, fuel wood collection, and poorly managed tourism activities.

#### Outputs/Results:

• The capacity of 5 local volunteer rangers is strengthened with respect to monitoring for biodiversity conservation and natural resource management.

• Survey team findings were reported to WWF and will inform design of future conservation activities in KNP.

# Activity 1.4.13: Provide technical and financial support to forest departments and communities to protect habitat.

# Country: India

In India in AHM Project Year 3, WWF led a training on biodiversity field survey techniques for field staff of the North Sikkim district Forest, Environment and Wildlife Management Department (FEWMD). This training was held from September 10-11, 2015 and 24 people (4 Women) participated who were primarily forest guards, forest block officers, and range officers. Topics discussed during the training included the importance of Sikkim as a biodiversity hotspot, important flora and fauna in Sikkim, use of GPS units for field surveys, and use of camera traps for monitoring snow leopards and other wildlife.

- 24 FEWMD staff members are trained on conducting biodiversity and snow leopard monitoring techniques and using monitoring results to improve design of snow leopard and other conservation activities.
- Awareness of WWF's snow leopard conservation efforts in North Sikkim is raised amongst government conservation field staff in North Sikkim.

# Kyrgyzstan

# <u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

Activity 1.1.3: Provide technical support for local associations and NGOs to conduct awareness raising activities regarding sustainable natural resource management and use.

#### Country: Kyrgyzstan – 1.1.3A

In Kyrgyzstan in AHM Project Year 3, WWF and the Sarychat-Ertash State Reserve provided support for two International Snow Leopard Day celebrations, the first on October 20, 2014 in Engilchek Village and the second on October 23, 2014 in Akshyrak Village, both in the buffer zone of the Sarychat-Ertash State Reserve. Features of these celebrations were ecological theatre skits and concert programs on the need for snow leopard conservation. In Akshyrak, a children's drawings contest on the theme of "Save the lord of the mountains, the Snow Leopard" and a "best snow leopard costume and make-up" contest were also held. Guests in attendance included local residents, Sarychat-Ertash Reserve staff and other guests. In total, 42 people (21 Women) participated in the Engilchek event while 97 people (42 Women) participated in the Akshyrak event.

# Outputs/Results:

- 139 People (63 Women) participate in International Snow Leopard Day celebrations in the buffer zone of the Sarychat-Ertash reserve, building awareness and reinforcing AHM Project efforts to protect snow leopards in this region.
- Lessons of the celebration were disseminated more broadly in Kyrgyzstan by provincial and national TV coverage of the Akshyrak snow leopard day celebration (see media coverage, Annex 8).

#### Country: Kyrgyzstan – 1.1.3B

In Kyrgyzstan in AHM Project Year 3, WWF provided support for holding an International Mountain Day celebration on December 11, 2014 at the E. Kendyrbajev Secondary School in Barskoon Village, Issyk Kul Province, location of the Sarychat-Ertash State Reserve Headquarters. The theme of this celebration was "Mountains and Water." Highlights of this celebration included student drama, singing, and drawing contests on the theme of mountains and water as well as distribution of informational materials on wildlife and protected areas in Kyrgyzstan. In total, 29 people (16 Women) participated. This activity was funded by AHM Project co-financing from WWF Netherlands.

# Outputs/Results:

• 29 People (16 Women), primarily secondary school students, have their awareness of mountain and protected area issues raised, particularly with respect to the nearby Sarychat-Ertash State Reserve.

#### Country: Kyrgyzstan – 1.1.3C

In Kyrgyzstan in AHM Project Year 3, WWF provided support for holding a children's snow leopard assembly and essay and drawing competitions at Bishkek Secondary School No. 5 on February 9, 2015. The school principal addressed the assembly in which 28 students and 5 teachers (16 Women) participated. The theme of the assembly was "Save the Snow Leopard lord of the Mountains," and the assembly featured presentations of snow leopard facts and conservation. This activity was funded by AHM Project co-financing from WWF Netherlands.

#### Outputs/Results:

• 33 People (16 Women), primarily secondary school students, in the Kyrgyz capital, Bishkek have their awareness of snow leopard conservation issues raised.

### Country: Kyrgyzstan – 1.1.3D

In Kyrgyzstan in AHM Project Year 3, WWF, in cooperation with the staff of the Sarychat-Ertash State Reserve, provided support for holding an educational Earth Day Celebration in Karakolka Village in the buffer zone of the Sarychat-Ertash Reserve on April 22, 2015. 30 People (12 Women) attended, including students, local livestock herders, and a few residents of Barskoon Village. Residents of Karakolka gave ecological theatre performances on the importance of conservation of our planet and the necessity of protecting soil, water, and rare flora and fauna. Participants were also informed that 2015 was declared to be the UN FAO's "International Year of Soils" with the motto "healthy soils for a healthy life," and were taught about threats to soils from unsustainable farming practices, pollution, and growing human populations.

## Outputs/Results:

- 30 People (12 Women) have their awareness of the global importance of protecting soil, water, and rare flora and fauna increased.
- Lessons of the Earth Day celebration were disseminated more broadly in Kyrgyzstan by provincial and national TV coverage of the Akshyrak event.

### Country: Kyrgyzstan – 1.1.3E

In Kyrgyzstan in AHM Project Year 3, WWF cooperated with the Sarychat-Ertash State Reserve and the Issyk Kul Biosphere Reserve to co-organize the 2015 Land of the Snow Leopard Festival on May 22, 2015 in Akshyrak Village in the buffer zone of the Sarychat-Ertash State Reserve. The festival was attended by 167 people (85 Women), including residents of Akshyrak, Engilchek, and Karakolka Villages in the Sarychat-Ertash Reserve buffer zone, local government officials, and staff of WWF and the Issyk Kul Biosphere Reserve. This festival featured snow leopard and ecological-themed dance, theatre, song, legend, and handicraft competitions between teams from the three reserve buffer zone villages.

#### Outputs/Results:

• 167 People (85 Women) from three villages in the buffer zone of the Sarychat-Ertash Reserve hold a Land of the Snow Leopard Festival in Sarychat-Ertash, reinforcing

- conservation lessons of the AHM Project and the successes of the Sarychat-Ertash State Reserve.
- Lessons of the snow leopard festival celebration were disseminated more broadly in Kyrgyzstan by provincial and national TV coverage of the Akshyrak event.

# Country: Kyrgyzstan – 1.1.3F

In Kyrgyzstan in AHM Project Year 3, WWF cooperated with the Sarychat-Ertash State Reserve and the Kumtor Gold Mine to organize a 10-day children's summer eco-camp at Chon Jargalchak Village on the south shore of Lake Issyk Kul from July 18-28, 2015. In total 26 children (9 girls) (including 5 from Akshyrak and 2 from Engilchek Villages in the buffer zone of the Sarychat-Ertash State Reserve who had won earlier eco-themed competitions) and 3 teachers (2 Women) participated. Activities at the camp included lessons on nature conservation and sustainable natural resource use; eco-themed quizzes, competitions, and field trips; and practical training led by experts in taking water samples from Lake Issyk-Kul and the Barskoon River that were tested for several environmental parameters.

#### Outputs/Results:

- 29 People (11 Women), primarily students, from rural Kyrgyzstan are introduced to wildlife conservation, sustainable natural resource use, and environmental science concepts.
- Lessons of the children's eco-camp were disseminated more broadly in Kyrgyzstan by provincial and national TV coverage of eco-camp activities.

# Activity 1.1.6: Facilitate cooperation among stakeholders (e.g. gold mining company "Kumtor") to establish a model of local natural resource management

#### Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, further development of AHM Project cooperation with the Kumtor gold mine to build a public-private partnership for improving local natural resource management is now looking very unlikely. This is due to recurring protests against the Kumtor mine in Issyk-Kul Province and parliamentary discussion on nationalizing the mine. Nevertheless, it should be noted that WWF did cooperate with Kumtor to successfully organize the children's summer eco-camp discussed under Activity 1.1.3F, above.

# Outputs/Results:

• WWF, the Sarychat-Ertash State Reserve, and the Kumtor Gold Mine successfully cooperated on the organization and holding of an annual children's summer eco-camp (see Activity 1.1.3F, above).

#### **Sub-objective 1.2:** Increase community resiliency to climate change impacts.

Activity 1.2.1: Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards.

# Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF completed a climate change vulnerability assessment for Kyrgyzstan's Central Tian Shan region, which covers all of WWF's main AHM Kyrgyzstan project sites. Both English and Russian versions of the report were produced, which cover climate change impacts on glaciers, biodiversity, and local residents as well as proposing adaptation actions to address these impacts. This report will serve as the basis for development and eventual implementation of climate adaptation strategies for the Central Tian Shan Region.

#### Outputs/Results:

- A climate change vulnerability assessment for Kyrgyzstan's Central Tian Shan region is produced which covers all AHM Project sites in Kyrgyzstan.
- The climate vulnerability assessment will help guide development of an adaptation strategy for the region.

Activity 1.2.2 Work with local institutions (e.g. agricultural extension offices, local resource user groups, and herder groups) to promote best land management practices, and enhance crop productivity and climate resilience through rainwater harvesting, small-scale storage, and drought and pest-tolerant crops

#### Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF held a series of consultation meetings with local communities on developing a climate-smart watershed management plan for the Chon Kyzyl Suu River Basin. These meetings were held in four districts, namely Kyzyl-Suu, Svetlopolyansky, Ak Dobo and Orgochor Districts. Participants included members of local community groups such as pasture committees, water users associations, district administration, village councils, herders groups, and staff of the Tian Shan Research Station located in the basin.

The first consultation meeting was held on July 4, 2015, in Chon Kyzyl Suu and was attended by 7 members (3 Women) of the Chon Kyzyl Suu village council. At this meeting, boundaries of village pastures in the Chon Kyzyl Suu basin were delineated and discussed as were grazing-related problems in the village. A workshop on improving grazing in the village was planned and an invitation list for the workshop was drawn up.

The next consultation meeting was held July 8, 2015 in Lipenka Village and was attended by 20 People (9 Women) from 3 water users associations (WUA) that are active in the Chon Kyzyl Suu River basin. Topics of discussion at this meeting were the goals and objectives of the AHM project in the Chon Kyzyl Suu River basin, climate change impacts on the basin and their mitigation, the problem of WUAs, details of the three functioning WUAs in the Chon Kyzyl-Suu river basin and the process for developing the climate-smart watershed

management plan.

A consultation meeting was held on from July 21-23, 2015 in the town of Chon Kyzyl-Suu. This meeting was attended by 16 People (5 Women) who were all members of local pasture committees in Ak Dobo District. Topics of discussion were the goals of the AHM Project and climate-smart watershed management planning process, pasture and grazing issues in Ak Dobo, climate change impacts on local pastures, and their mitigation.

On August 10, 2015, a meeting was held with the village council and water users associations of Muz Bulak Village in Svetlopolyansky District. Topics discussed at this meeting were problems related to irrigation, particularly disputes with neighboring villages concerning village water allocations, irrigation system maintenance, and limitations of the local water supply.

Another consultation meeting was held from August 20-22 in Chon Kyzyl Suu for 15 members (5 Women) of the Chon Kyzyl Suu pasture committee that discussed the same topics as the July 21-23<sup>rd</sup> meeting, above.

From September 2-4, 2015, a meeting was held in Lipenka Village that was attended by 15 People (9 Women). The purpose of this meeting was to inform water users from the four districts in the Chon Kyzyl-Suu River basin about progress of the climate-smart watershed management planning process and further details of AHM project plans. Meeting participants discussed their problems with respect to water usage and supply and their approaches to resolving these problems. Other topics discussed included needed funding and capacity for improving local water management.

From September 14-16, 2015 a consultation meeting was held for pasture users of Svetlopolyansky Village that was attended by 21 People (8 Women). The purpose of this meeting was to inform these pasture users about AHM Project objectives in the Chon Kyzyl Suu River basin, the watershed management planning process, climate change impacts on pastures and mitigation measures, and to hear attendees' views on the status of local pasture management in the basin.

#### Outputs/Results:

- All participants of consultation meetings were informed about AHM Project
  objectives in the Chon Kyzyl Suu River basin, climate change impacts on the basin,
  other environmental issues in the basin, and possible mitigation measures.
- Information and data needed for development of the watershed management plan for the basin was collected and analyzed, particularly concerning land cover and pasture and water use in the basin.

Activity 1.2.3: Promote climate-smart agricultural and grazing practices that maintain healthy pasture for livelihoods and wildlife (e.g. rotational grazing and controlled pastureland burning)

Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF supported a series of measures to improve both pasture management and livestock health to improve sustainability of pastoral livelihoods as part of a broader climate adaptation strategy for the AHM Project region. On March 24, 2015, WWF signed a 200 hectare pasture lease with the Lipeskoy Village Council in order to accommodate WWF's growing demonstration yak herd and to increase pastures available for demonstrating proper pasture rotation with this herd. A seasonal pasture rotation plan for these pastures was developed and explained to responsible herders. A joint pasture rotation plan was agreed upon with herders using remote pastures of the Central Tian Shan in the vicinity of the Sarychat-Ertash State Reserve. In addition, cooperation on sustainable pasture management was initiated with herder groups in the Chon Kyzyl Suu River basin.

On August 1, 2015, WWF participated in the Day of the Shepherd festival held in Karakolka Village, Issyk Kul Province, located in the buffer zone of the Sarychat-Ertash State Reserve. This festival was funded by the local district government and was attended by approximately 280 herders (120 Women) from the surrounding area. The main purpose of this gathering was to promote local initiatives to improve managed pasture rotation. WWF AHM Project staff were invited to give speeches, and spoke about both improving management of mountain pastures and the need to protect the habitat of snow leopards, argali, ibex, marmots, and other wildlife that inhabit these pastures. Participants were also informed about recently increased fines for wildlife poaching.

On August 25, 2015, as part of WWF's climate-smart livestock rearing activities, WWF conducted a livestock vaccination campaign for the demonstration yak herd kept in the buffer zone of the Sarychat-Ertash Reserve. During this activity, 66 yaks were vaccinated against pasteurellosis and emphysematous carbuncle which should increase the survival rate of vaccinated animals at minimal cost.

- Good progress is made in establishing both a sustainably managed demonstration yak herd and a demonstration system of rotational management of this herd as part of a broader climate adaptation strategy for the Sarychat-Ertash Reserve and its environs.
- Lessons learned with respect to yak herding and rotational pasture management as well as climate adaptation aspects of both are shared with local herders.

#### **Sub-objective 1.3:** Enhance community engagement in conservation.

Activity 1.3.9: Develop and support community-based eco-friendly income generation training and alternatives (e.g. felt production, facilitating market linkages, use of yak/horse milk for medicinal purposes such as treating stomach ulcer, gastritis; ecotourism).

#### Country: Kyrgyzstan – 1.3.9A

In Kyrgyzstan in AHM Project Year 3, WWF supported establishment and launch of local development funds (LDF) in Akshyrak and Engilchek Villages in the buffer zone of the Sarychat-Ertash State Reserve. The first meeting was held from October 9-10, 2014 to establish the Akshyrak LDF, where 5 community LDF groups (jamaats) were established to develop business plans for alternative livelihood activities and and apply for micro-loans from the fund. These small, self-organized community groups will function as a single entity when applying for LDF micro-loans for sustainable development projects. The main purpose of local LDFs is to improve livelihoods of participating high-mountain communities through the development of sustainable, environmentally-friendly alternative income-generating activities. All micro-loans made under these LDFs will be accompanied by lessons on the importance of nature conservation, particularly snow leopard conservation, in the Sarychat-Ertash Region and will promote harmonious co-existence between local residents and wildlife. Management of the Akshyrak LDF was discussed and representatives of Toguz Bulak Village, which already has an LDF, shared their experiences. In total, 22 People (12 Women) participated in the LDF meeting at Akshyrak.

On October 20, 2015, a second LDF establishment meeting was held in Engilchek Village. At this time three community LDF groups (jamaats) were established that will function along the same lines as the Akshyrak LDF. In total 29 people (14 Women) participated in the launch of the Engilchek LDF. Notably, USD 10,000 in seed money was provided through AHM Project co-financing from WWF Netherlands for establishment of the Akshyrak and Engilchek Village LDFs. The AHM Project directly supported the process of organizing LDFs, in particular organizing training on the principles of operation of LDF funds based on the successful Toguz Bulak Village LDF that operates at the eastern end of Lake Issyk Kul. In addition, members of the Akshyrak and Engilchek LDFs contirubted USD 2000 in start up money for these funds. Livelihood activities funded under the first year of these LDFs included wool processing wool and handicraft production activities. Preliminary monitoring of LDF activities was conducted on May 23, 2015 in Akshyrak Village and on June 24, 2015 in Engilchek Village which covered all 8 participating jaamats from these two villages. Findings of the review indicated that all 8 jaamats are functioning normally and will be able to pay back microloans received from the LDF on time, at which time they will be eligible to apply for the further loans.

- Establishment of the two LDFs contributes to improving the livelihood security of two high-mountain communities through development of sustainable alternative income-generating activities.
- Establishment of LDFs is tied to continuing community participation in and support for snow leopard conservation activities in the vicinity of the Sarychat-Ertash State Reserve.

#### Country: Kyrgyzstan – 1.3.9B

In Kyrgyzstan in AHM Project Year 3, WWF supported women from Akshyrak and Karakolka Villages in the production and marketing of felt handicrafts as one sustainable alternative livelihood activity that forms part of a broader climate adaptation strategy for the Sarychat-Ertash Region. In this regard, felt-making machinery was donated to local NGOs in Akshyrak and Karakolka Villages for rapid production of felt from local wool to be used in production of handicrafts. WWF also provided support for marketing of handicrafts produced by women from these villages at the 2015 annual Central Asian "Oimo" crafts fair in the tourist center of Cholpon Ata on Lake Issyk Kul from August 3-9, 2015. During the fair representatives of Akshyrak and Karakolka Villages sold crafts from these villages to earn a total of USD 720 in sales at the fair. In addition, these sellers also participated in a masters class at the fair, learning new handicraft making techniques that they will share with other handicraft makers in their home villages.

- Capacity strengthened to produce felt handicrafts as part of a broader climate adaptation strategy for livelihoods in the buffer zone of the Sarychat-Ertash Reserve.
- Marketing of locally produced handicrafts is promoted, increasing incomes of participating women's group members.

#### Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.

Activity 1.4.4: Perform snow leopard population survey by collecting and performing genetic analysis, and potentially using camera traps in sites where snow leopards are present.

# Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF continued to support monitoring and camera trapping of snow leopards and their prey species in the Sarychat-Ertash Reserve. From December 12-20 2014, WWF worked with the Staff of the Sarychat-Ertash State Reserve to conduct a winter wildlife survey at the reserve which focused on counting argali and ibex, the primary prey of the snow leopard at Sarychat, as well as noting snow leopard sign and sightings of other mammals such as wolves. In addition, reserve staff collected 300 scat samples for DNA analysis from throughout the reserve following the DNA scat collection protocol developed by a PhD geneticist. These samples will be shipped to Duquesne University for analysis of species and number of individuals present, with results anticipated to be ready in the summer of 2016. Prey species surveys revealed increasing numbers of argali and ibex in the Sarychat-Ertash Reserve, however heavy late spring snow falls resulted in a high mortality of argali and ibex lambs this year. Results of all these efforts will provide valuable information for improving management of the reserve. In addition, in the Chon Kyzyl Suu Valley, WWF worked with local herders trained as citizen scientists to install two camera traps in the Sawatari and Karatakyya areas to confirm the presence of snow leopards and other wildlife. These camera traps were deployed in August 27, 2015 and will be collected in November 2015.

#### Outputs/Results:

- Continued monitoring of snow leopards and their prey species was conducted in AHM Year 3 in the Sarychat-Ertash Reserve.
- 300 potential snow leopard scat samples were collected throughout the Sarychat-Ertash Reserve for DNA analysis with results expected in the summer of 2016.
- Results of all survey work in the Sarychat-Ertash Reserve will be used to improve conservation efforts in the reserve and other snow leopard range areas in Kyrgyzstan.
- Two trial camera trap stations were set up in the Chon Kyzyl Suu Valley to confirm the presence of snow leopards and other wildlife.

# Activity 1.4.9: Support patrolling by providing anti-poaching teams with field supplies and gear, and conduct trainings to improve capacity of private game management entities.

# Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF continued to provide support for the Sarychat-Ertash State Reserve that will improve the ability of reserve staff to patrol and manage the reserve. WWF installed a second wind-generator with a capacity of 1.5 KW at the Sarychat-Ertash Gulotock ranger station on October 11, 2014. This generator will both improve living conditions for rangers at this remote site and serve as a useful demonstration of the renewable energy capacity of wind resources in the Central Tian Shan. WWF also provided support to help the rangers of the Sarychat-Ertash State Reserve carry out their duties in the form of a

donation of binoculars, tents, walkie-talkies, and 20 sets of uniforms that included camouflage jackets and pants, thermal underwear, fleece jackets, and sturdy boots. These items were presented to the rangers at the Akshyrak Village International Snow Leopard Day celebration on October 23, 2014. In August 2015, WWF funded a renovation of the remote Eshekart Ranger Station that serves as an important base for patrolling the core zone of the Sarychat-Ertash Reserve, and is alos the primary base camp for expeditions heading into the reserve. This renovation involved the repairing the roof, floor, and interior walls as wells installing insulation around the window frames.

#### Outputs/Results:

- Rangers of the Sarychat-Ertash Reserve were provided with equipment necessary to do their jobs and had some of their reserve housing facilities improved.
- Ability and motivation to conduct patrols in remote areas of the reserve is improved, improving effectiveness of wildlife conservation activities.

# Activity: 1.4.10: Involve local communities in species conservation activities through conservation education, training, and practical experience in snare removal and fire prevention.

# Country: Kyrgyzstan

In Kyrgyzstan in AHM Project Year 3, WWF cooperated with the Hunting Department of the State Agency on Environment Protection and Forestry to design and distribute a 2015 wall calendar poster that features photos of Tian Shan wildlife and highlights increased fines for illegal hunting of snow leopard, argali and ibex. Through this effort, awareness of illegal wildlife hunting and the new larger penalties for poaching has been greatly increased in the AHM Project region. These calendars were distributed throughout the project area as well as elsewhere in Kyrgyzstan by the State Agency on Environmental Protection and Forests.

- Information on the protected status of local wildlife and increased penalties for killing these protected species is disseminated widely in the project area and elsewhere in Kyrgyzstan.
- Awareness of national wildlife protection laws and penalities is greatly increased.

# Mongolia

# <u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

Activity 1.1.3 Provide technical support for local associations and NGOs to conduct awareness raising activities regarding sustainable natural resource management and use

# Country: Mongolia – 1.1.3A

In Mongolia in AHM Project Year 3, WWF provided support for International Snow Leopard Day events in the city of Khovd in the Altai Region of Western Mongolia on October 23, 2014. Activities marking this event included a student drawing contest with entries by 60 students (~30 Women), an endangered species protection pledge petition signing in Khovd City that gathered 550 signatures, and a local TV broadcast of a documentary on snow leopard conservation. A special article written for this event titled "The snow leopard also has the right to live" was published in daily newspapers in Khovd and Ulaanbaatar.

#### Outputs/Results:

 Awareness of snow leopard conservation issues raised in Western Mongolia's Khovd Province, the primary site of AHM Project activities.

### Country: Mongolia – 1.1.3B

In Mongolia in AHM Project Year 3, WWF provided support for holding an annual summer camp for school eco-club members from June 27 to July 3, 2015 at Kharkhiraa Children's Camp in Uvs Aimag (province). In total, 103 Children (51 Girls) and 13 Teachers (8 Women) from 10 soums (counties) of Khovd and Gobi-Altai Aimags participated, including students from Chandmani, Zereg, and Mankhan Soums in Khovd Aimag. At the camp, students and teachers shared the experiences of their respective school eco-club conservation activities over the past year. Activities at the gathering included trainings on organizing environmental campaigns, public awareness activities, and environmental calls to action; a children's drawing exhibition titled "Home of the Snow Leopard;" sharing of successes of various school eco-club activities; children's art classes; and recreational activities geared towards children such as day hikes and sport competitions.

# Outputs/Results:

- 103 children (52 Girls) and 13 Teachers (8 Women) from snow leopard range areas of western Mongolia attended a summer camp for school eco-club members where students shared successes of club activities, received training on conducting environmental campaigns, and participated in various competitions.
- Participating club members are motivated to plan and implement new conservation activities in their home regions.

#### Country: Mongolia – 1.1.3C

In Mongolia in AHM Project Year 3, in the summer of 2015 WWF completed production of a film on human-snow leopard conflict titled "The Spirit of the Mountain." This film is a dramatization of a true story and is the first of wildlife film of its kind to be produced in Mongolia. As of September 30, 2015, the film had been shown to 2255 residents (approximately half women, and approximately half school children) in Khovd, Bayan-Ulgii, Govi-Altai, Uvs Aimags (provinces) in the Altai-Sayan Ecoregion of Mongolia as well as in the Mongolian capital, Ulaanbaatar city.

### Outputs/Results:

• WWF Mongolia produced an innovative and entertaining educational film on humansnow leopard conflict and the need to protect snow leopards that has to date has been viewed by 2255 residents of snow leopard range areas and the capial, Ulaanbaatar.

Activity 1.1.4: Build governance capacity of local community herder groups to develop sustainable pasture and watershed management plans as well as strategies to mitigate human-wildlife conflict, such as the relocation of winter livestock sheds to low-risk areas.

### Country: Mongolia

In Mongolia in AHM Project Year 3, WWF provided financial and technical support for compiling pasture databases for five soums (counties) in Khovd Aimag (province), namely Darvi, Zereg, Mankhan, Must and Tsetseg Soums, which lie within the AHM Project's Jargalant Khairkhan, Bumbat Khairkhan, and Baatar Khairkhan Mountain project sites. Pasture data collected in each soum was compiled into a GIS database and will be used as a baseline for developing soum-level pasture management plans. Data compiled in this database included pasture carrying capacity, land use patterns, livestock population data, human population data, location of wells, surface water resources, hydro-meteorological data, pasture reserve data, and seasonal migration patterns of local herders.

- Pasture data bases are compiled for 5 soums in Khovd Province at AHM Project sites in snow leopard range areas.
- Pasture data bases will be used for methodically improving sustainability of pasture management practices at these sites.

### Sub-objective 1.2: Increase community resiliency to climate change impacts.

Activity 1.2.1: Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards. (Countries: B, K, M, P)

#### Country: Mongolia – 1.2.1A

In Mongolia in AHM Project Year 3, WWF conducted a climate change knowledge, attitude, and practice (KAP) survey in the Altai-Sayan Ecoregion to gage local residents' awareness of climate change impacts on their lives and livelihoods and develop possible mitigation strategies for these impacts. This survey was carried out between December 2014 and February 2015 in snow leopard range areas of the five western provinces - Khovd, Gobi-Altai, Zavkhan, Bayan-Ulgii, and Uvs Aimags. In total, 1564 people (608 women) participated in the survey, of whom 1113 were herders. A team of 10 survey takers conducted the survey under harsh winter conditions and survey results were compiled into a report.

# Outputs/Results:

- A social survey on climate change and its impacts is carried out amongst 1564 respondents (608 Women) in snow leopard range areas of western Mongolia.
- Results of the survey will be used develop climate adaptation strategies for herders and ecosystems in these snow leopard range areas.

# Country: Mongolia – 1.2.1B

In Mongolia in AHM Project Year 3, WWF cooperated with the Institute of Biology to complete a preliminary climate vulnerability assessment for the Altai Sayan Ecoregion of western Mongolia. This vulnerability assessment examined 12 hydrological basins covering snow leopard range areas of western Mongolia. Climate sensitive factors analyzed included recent changes in permafrost, runoff, and generally aridity. Findings of this assessment will be used to guide design and implementation of climate adaptation measures in WWF priority areas under the AHM Project.

- A preliminary climate change vulnerability assessment is completed for snow leopard range areas of western Mongolia.
- Findings of the vulnerability assessment will help guide design and implementation of climate adaptation strategies for snow leopard range areas of western Mongolia.

#### **Sub-objective 1.3: Enhance community engagement in conservation.**

Activity 1.3.1: Strengthen participation of local communities, (e.g. *Himal Rakshaks* – mountain guardians, herder groups, and SLCCs) in conservation of snow leopards and climate change adaptation activities in headwater ecosystems.

#### Country: Mongolia – 1.3.1

In Mongolia in AHM Project Year 3, photos and video from several camera traps at the AHM Jargalant Khairkhan project site revealed two snow leopards that were injured and maimed by traps set illegally to hunt other species, such as marmots. In order to address this urgent issue, from June-August 2015, WWF supported a campaign called "Let a Cub's Wish Come True" to halt the practice of illegal trapping at Jargalant Khairkhan. As a first step, WWF produced a short video specifically targeting local school children to raise their awareness of the threat to wildlife from trapping, and to appeal to them to take action. After watching the video about the maimed snow leopards, students discussed their impressions and initiated a campaign for a trap-free mountain. Next, students announced the "Let a Cub's Wish Come True" campaign at bagh (village cluster) administrative meetings and other public gatherings and called on their families and neighbors to participate in the trap-free mountain initiative. At these meetings, campaign banners were displayed and stickers and other promotional materials distributed. WWF then provided useful household items such as milk cans, pots, bowls, and other household utensils to exchange for traps on the condition that recipients of these items promise not to resume trapping and make an effort to improve protection of local snow leopards and other wildlife. Of an estimated 500 traps based on trap counts provided by students at the Mankhan and Chandmani soum schools, 240 traps have so far been exchanged for household utensils by 40 local families. The campaign has thus far shown great success at reducing the number of traps on Jargalant Khairkhan Mountain and educating locals about threats to snow leopard and other wildlife. Participating student remain confident that all 500 traps can be collected.

### Outputs/Results:

- An anti-trap campaign is launched at Jargalant Khairkhan Mountain where school children directly appeal to their families and neighbors to stop trapping wildlife.
- From June-August 2015, 40 local families voluntarily hand over 240 wildlife traps and promise to improve protection of snow leopards and other wildlife in exchange for ordinary household utensils used by local herders.

# Activity 1.3.4: Disseminate lessons and best practices for mitigating human-wildlife conflict with stakeholders and decision makers.

#### Country: Mongolia

In Mongolia in AHM Project Year 3, WWF organized a human-snow leopard conflict learning and sharing meeting for NGO and government workers on November 19, 2014 in Ulaanbaatar. The goal this meeting was to begin development of a national human-snow leopard conflict management strategy for Mongolia. In attendance were local representatives of WWF, the Snow Leopard Trust, Mongolian Irbis Center, the Mongolian Academy of Sciences' Institute of Biology, and the Environmental Crime Division of the National Police Agency. During this meeting, a conceptual model of human-snow leopard conflict prevention

and mitigation was developed that will serve as the basis for preparing the above strategy, which is currently being drafted.

#### Outputs/Results:

- 8 People (4 Women) from 5 organizations meet and provide input on developing a national human-snow leopard conflict management strategy for Mongolia.
- Using input from this meeting, a national human-snow leopard conflict strategy for Mongolia is currently being prepared and is expected to be completed in June 2016.

# Activity 1.3.5: Work with local communities to provide knowledge and skills for adding value to livestock products, and support market linkages to increase and diversify their income.

#### Country: Mongolia

In Mongolia in AHM Project Year 3, WWF provided support to three communities in the AHM Project area of western Mongolia to diversify their livelihoods as one climate adaptation strategy for rural livestock herders. This support included helping Buurliin Magnai Village in Mankhan Soum (county), Baatruudiin Myangan Salaa Village in Zereg Soum, and Erdeniin Chuluu Village in Zereg Soum in Khovd Aimag (province) market felt products such as toys, slippers, and cushions in the Khovd Aimag provincial capital as well as internationally at zoo gift shops through Snow Leopard Trust's Snow Leopard Enterprises program. Over the past year, 21 participating craftswomen earned approximately USD 2000 through sale of handicrafts that benefited their families. WWF also supported three herding families to host tour groups in mobile yurt camps at Jargalant Khairkhan Mountain in Khovd Aimag, Dund Uliastai in Khovd Aimag's Mankhan Soum, and Tsagaan Sair in Mankhan Soum earning these three families about USD 170 each. Finally, by arrangement of WWF, Buurliin Magnai Village began selling its surplus meat products in the Nomad Cooperative (Nuudelchdiin Dewchih Urguu) Shop in the Khovd Aimag capital which will earn participating families additional cash income.

#### Outputs/Results:

• 21 families from three project communities in Khovd Aimag diversify their income sources, lessening their dependence on the local natural resource base and increasing their livelihood security in the face of changing climatic conditions.

#### Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.

Activity 1.4.1: Develop a monitoring protocol for selected field sites to assess abundance and distribution of snow leopards and their prey base using sign surveys, fixed-point counts, camera traps, and genetic analysis.

#### Country: Mongolia

In Mongolia in AHM Project Year 3, WWF conducted snow leopard monitoring camera trap surveys at Bumbat Khairkhanand Baatar Khairkhan in Khovd Aimag (province) with the participation of local herders trained as citizen scientists. At the Bumbat Khairkhan AHM Project site, WWF worked with 2 volunteer rangers (Both Men) and 8 local herders (All Men) to conduct this survey from July 2014 to April 2015. A total of 10 cameras were deployed which captured 156 snow leopard images. Analysis of these images revealed 8 snow leopard individuals, 2 of which were cubs, occupying Bumbat Khairkhan Mountain. Findings of this survey will be used to better delineate snow leopard distributions in Khovd with the goal of improving conservation planning. At the Baatar Khairkhan AHM Project site, WWF worked with 3 volunteer rangers and 1 local herder (All Men) to conduct a camera trap survey from January 2015 to May 2015. Images collected during this survey are still being reviewed.

# Outputs/Results:

- One camera trap survey completed at Bumbat Khairkhan Mountain in Khovd Aimag that found 8 snow leopard individuals on this mountain.
- A second camera trap survey was completed at Baatar Khairkhan Mountain in Khovd Aimag with images collected still being reviewed.
- Findings of these surveys will be used to improve wildlife conservation planning in Khovd Aimag.

# <u>Activity 1.4.5:</u> Begin radio-tracking of snow leopards using GPS collars to collect information on home range size, habitat type and preferences, hunting behavior and frequency, and activity patterns. (Countries: M, N)

## Country: Mongolia

In Mongolia in AHM Project Year 3, WWF cooperated with the Mongolian Irbis Center, the Uvs Lake Basin Strictly Protected Area Administration, the Mongolian Academy of Sciences' Institute of Biology, and the Russian Academy of Sciences to place a satellite GPS tracking collar on one female snow leopard in the Tsagaan Shuvuut Strictly Protected Area (SPA) in Uvs Aimag Mongolia. Notably, the Tsagaan Shuvuut SPA is located within the trans-boundary Ubsunur Hollow Biosphere Reserve that overlaps Russia's Tuva Republic. This expedition occurred from October 25-10 November, 2014 and included biologists, a local citizen scientist, and a veterinarian and his assistant who sedated the trapped snow leopard. Scientists and experts from both Mongolia and Russia worked together to jointly monitor the cat with respect to habitat selection, movement patterns, and home range size, which will provide invaluable information for improving trans-boundary snow leopard protection work in this region. Unfortunately, 4 months into the planned 2 year tracking period, the collar failed and the monitoring team stopped receiving GPS locations via satellite. However, this snow leopard has recently been photographed by camera trap in the

Tsagaan Shuvuut Strictly Protected Area in Mongolia and is alive and well and still wearing the failed collar, which may still be trackable by handheld VHF antenna. Note: This activity was entirely funded by AHM Project co-financing from WWF-Netherlands under the WWF Altai Sayan Ecoregion Program.

#### Outputs/Results:

• One snow leopard collared with a satellite GPS tracking collar providing 4 months of extremely valuable data on this snow leopard's movements in the transboundary Ubsunur Hollow Biosphere Reserve straddling northern Mongolia and Russia.

Activity 1.4.6: Train local community members such as livestock herders to be citizen scientists conducting monitoring of snow leopard populations, prey species, and threats to snow leopards (e.g. poaching, retaliatory killing, and habitat degradation) and to conduct anti-poaching efforts through local SLCCs and other wildlife protection organizations.

# Country: Mongolia

In Mongolia in AHM Project Year 3, WWF trained a volunteer ranger at the new Sair Mountain Local Protected Area in Bayan Olgii Aimag in March, 2015 and equipped him with a spotting scope and tripod. This volunteer ranger will monitor local wild ungulate populations, such as ibex and argali. In addition, from January-July 2015 WWF staff trained 17 local herders and volunteers (1 Women) from Zereg, Chandmani, and Mankhan Soums (county) in Khovd Aimag (province) and Dariv Soum of Gobi-Altai Province on monitoring of snow leopards and their prey species. These new citizen scientists are now conducting snow leopard and prey species surveys 4 times per year in AHM Project priority sites, including at Baatar Khairkhan, Bumbat Khairkhan, Sair, Gulzat, and Darvi Mountains. Findings of these surveys will be used to update wildlife distribution maps and to improve management of snow leopard habitat in western Mongolia.

### Outputs/Results:

- 18 local herders and volunteers (1 Women) trained on monitoring methods for snow leopards and their prey species who will conduct monitoring at Baatarkhairkhan, Bumbat Khairkhan, Sair, Gulzat and Darvi Mountains.
- Findings of these surveys will be used to update wildlife distribution maps and to improve management of snow leopard habitat in western Mongolia.

# <u>Activity 1.4.11:</u> Pursue establishment of a system of protected areas for snow leopard conservation that consider recent and predicted changes in key habitats.

#### Country: Mongolia

In Mongolia in AHM Project Year 3, WWF supported formal establishment of the Bayan Nuruu Reserve Pasture with an area of 105,200 ha in Darvi Soum (county), Khovd Aimag (province) This pasture reserve will remain closed to livestock grazing except during times of natural disasters, such as deep snowfalls, at which time the reserve will be temporarily

opened to livestock herders as an emergency grazing reserve. This reserve will provide benefits for herders in the form of a reliable source of standing fodder available during natural disasters as well as benefiting local wildlife by creating a livestock-free zone that will provide undisturbed grazing for wildlife and increase the resiliency of local grassland ecosystems to climate change impacts. It is also anticipated that reduced competition with domestic livestock will result in higher populations of snow leopard prey species. The formal agreement to establish this reserve was signed on September 18, 2014 with the new reserve pasture policy coming into effect in October 2014.

- A 105,200 emergency grazing reserve is established that will benefit wildlife and increase grassland ecosystem resiliency to climate change impacts.
- This reserve will be opened to livestock grazing only during fodder emergencies and thus will serve as one effective climate adaptation strategy for herding livelihoods in western Mongolia.

# Nepal

# <u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

Activity 1.1.1: Train members of local natural resource management groups on principles of good governance, gender and social inclusion, and support adoption of these principles in the groups' by-laws.

#### Country: Nepal (CARE)

In Nepal in AHM Project Year 3, CARE and the Community Forestry Supporters' Network (COFSUN)-Taplejung Office conducted monitoring of CARE-led field activities to assess their quality in the Papung, Olangchung Gola, Yamphudin, Tapethok, Lelep, and Kalikhola VDCs of the Kangchenjunga Conservation Area (KCA). The joint monitoring team reported that most of the activities were effective at raising the awareness of Community Forest Users' Group (CFUG), Mothers' Group (MG), and Natural Resource Management Group (NRMG) members with respect to biodiversity conservation and natural resource management practices, fund raising, and mobilization, thus benefiting local communities. Monitoring included both discussions with community groups and checks of activity records.

# Outputs/Results:

 CARE conducted monitoring of CARE-led activities in the KCA to assess quality of these activities.

# Activity 1.1.3 Provide technical support for local associations and NGOs to conduct awareness raising activities regarding sustainable natural resource management and use (K)

#### Country: Nepal (CARE)

In Nepal in AHM Project Year 3, in October 2014 CARE put up a total of 11 sign boards in the Kangchenjunga Conservation Area (KCA) with information on KCA regulations; KCA project information; biodiversity and conservation awareness messages; and on environmental issues, such as climate change and natural resource management. These were placed at various locations in the KCA, including the KCA Managment Council (KCAMC) headquarters, KCAMC sector offices, and in Papung and Kalikhola VDC town centers.

#### Outputs/Results:

• Awareness raised amongst KCA residents with respect to KCA management, biodiversity, conservation, and environment issues.

#### Country: Mongolia – 1.1.3C

In Nepal in AHM Project Year 3, WWF produced a documentary film titled "The Ghost of the Mountains" on AHM-funded snow leopard satellite GPS tracking collaring work in the Kangchenjunga Conservation Area. This film will be shown as an educational tool in Nepal and will also be shown by its director at various international documentary film festivals over

the next year, increasing international awareness of AHM activities. Co-financing for this film was provided by WWF-UK.

#### Outputs/Results:

• WWF Mongolia produced an innovative and entertaining educational film on humansnow leopard conflict and the need to protect snow leopards that has to date has been viewed by 2255 residents of snow leopard range areas and the capial, Ulaanbaatar.

Activity 1.1.9: Conduct leadership skills training in traditionally excluded communities to provide skills necessary to hold positions in user groups, conservation committees, and the conservation area council.

# Country: Nepal (CARE)

In Nepal in AHM Project Year 3, CARE organized two trainings in October 2014 on leadership skills and social inclusion to empower traditionally excluded groups from two communities in the Kangchenjunga Conservation Area's Tapethok VDC. Other topics discussed at these trainings included good governance in community sustainable natural resource management, local conservation issues, and equitable sharing of benefits from community natural resource management projects. Through these trainings, 45 people (29 Women) were empowered to hold positions within various local community groups, such as the KCAMC, CFUGs, Conservation Area User Committees (CAUC), MGs, etc. It is felt that these trainings will greatly increase participation in community conservation and natural resource management activities.

- 45 people (29 Women) from traditionally excluded groups were empowered to hold positions within various local community groups.
- Participation in natural resource management and other community activities in the KCA by traditionally excluded groups is increased.

### Sub-objective 1.2: Increase community resilience to climate change impacts.

Activity 1.2.2: Work with local institutions (e.g. agricultural extension offices, local resource user groups, and herder groups) to promote best land management practices and enhance crop productivity and climate resilience through rainwater harvesting, small-scale water storage, and introduction of drought and pest-tolerant crops.

#### Country: Nepal (WWF)

In Nepal in AHM Project Year 3, WWF provided support for conducting climate change adaptation activities for water and agriculture in 5 KCA villages as part of implementing community climate change adaptation strategies developed earlier under the Sacred Himalaya Landscape SCAPES Project (Table 4). These activities included building water efficient, small-scale lined irrigation canals and water storage ponds, introducing sprinkler irrigation, construction of green houses for growing vegetables in winter, and promotion of cardamom as a cash crop. In total, 2137 People (1112 Women) from 445 households benefited through from these activities which increased their adaptive capacity with respect to local climate change impacts.

- The adaptive capacity of 2137 People (1112 Women) from 445 households is increased with respect to climate change impacts on village water supplies and agriculture.
- Production of cardamom, an important cash crop in the KCA, is promoted and secured by delivery of irrigation water to cardamom plots in the 5 wards listed in Table 4, below.

**Table 4.** KCA Irrigation, Water Storage Pond, Greenhouse, and Cardamom acitivty beneficiaries.

Activity	Date	Location	Beneficiaries Households	Beneficiaries Population		
				Men	Women	Total
Small scale adaptive irrigation including sprinklers, pipes, and canals.	June 2015	Tapethok VDC: Ward No. 7, 8, 9	200	415	496	911
Small scale adaptive irrigation including sprinklers, pipes, and canals.	June 2015	Lelep VDC: Ward No. 2	108	274	283	557
Small scale adaptive irrigation including sprinklers, pipes, canals, and a small water storage pond.	June 2015	Tapethok VDC: Ward No. 2	27	82	87	169
Greenhouses for adaptive agriculture	June 2015	Lelep and Tapethok Villages	110	244	256	500
Totals			445	1015	1122	2137

# Activity 1.2.3: Promote climate-smart agricultural and grazing practices that maintain healthy pasture for livelihoods and wildlife.

#### Country: Nepal (WWF)

In Nepal in AHM Project Year 3, WWF provided support for trail, drinking water, and bridge improvement activities at 6 sites in the Kangchenjunga Conservation Area (KCA) with the primary goal of improving rates of pasture rotation amongst herders at these sites (Table 5). At Luwadada Village in June 2015, WWF supported a water supply improvement that piped water from a distant spring to a waterless pasture with the result that herders once again began using this dis-used grazing area where lack of a sufficient safe drinking water supply for both herders and livestock had previously been an issue. At Hile, Ghatte Khola, Chhange Khola, and Harkatte Villages WWF supported trail repair activities in June 2015 along sections of trail damaged by the April 25, 2015 earthquake as well as by earlier flooding and landslides which improved herder access remote pastures. Finally, a new bridge was constructed at Tamwa Khola Village in June 2015 for use by both herders and livestock which improved access to further pasture acreage. The net result of these activities is that access was improved to approximately 1000 ha of pasture, which will increase rates of livestock rotation with benefits for pasture ecosystems, including increasing grassland resilience to climate change impacts, and for local wildlife, such as blue sheep. In addition, trail improvements and the new bridge are benefitting all residents of these areas, including farmers and others who reside in the KCA, totaling 2577 People (1277 Women) from 404 households.

- Access to 1000 ha of pasturelands is improved, resulting in increased rates of pasture rotation with benefits for herders and their livestock, grassland ecosystems, and wild ungulates.
- Increasing rates of pasture rotation at these sites is expected to increase resiliency of local grassland ecosystems to climate change impacts and thus serve as an effective climate adaptation strategy for both herding livelihoods and grassland ecosystems.
- At present, the addition of these 1000 ha pastures brings the total area of grazing lands under rotational grazing in the KCA to 18,925 ha.
- Trail and bridge improvements also benefit other residents of the area who travel along improved routes.

**Table 5.** KCA pasture trail, bridge, and water supply improvement beneficiaries.

Activity	Date	Location	Beneficiary Households	Beneficiaries		
				Men	Women	Total
Water Supply	June 2015	Lelep VDC: Luwadada Village	27	109	114	223
Trail improvement	June 2015	Olangchung Gola VDC: Hile Village	30	174	163	337
Trail improvement	June 2015	Yamphudin: Ghatte Khola Village	30	95	85	180
Trail improvement	June 2015	Lelep VDC: Chhange Khola Village	26	65	64	129
Trail improvement	June 2015	Tapethok VDC: Harkatte Village	4	11	14	25
Bridge improvement	June 2015	Tapethok VDC: Tamwa Khola Village	287	846	837	1683
Totals			404	1300	1277	2577

#### **Sub-objective 1.3: Enhance community engagement in conservation**

Activity 1.3.1: Strengthen participation of local communities, (e.g. *Himal Rakshaks* – mountain guardians, herder groups, and SLCCs) in conservation of snow leopards and climate change adaptation activities in headwater ecosystems.

#### Country: Nepal (WWF)

In Nepal in AHM Project Year 3, WWF provided support to strengthen Kangchenjunga Conservation Area (KCA) institutions by donating desktop computers, printers and photocopy machines to four KCA district offices in Yamphudin, Tapethok, Ghunsa and Olangchung Gola on August 29, 2015. These donations will improve reporting, work productivity, database management in the KCA, and will increase the ability of the KCA Management Council (KCAMC) to improve management of natural resources and biodiversity conservation activities within the KCA.

#### Outputs/Results:

• Ability of four KCAMC district offices to produce reports, manage data, and disseminate information is enhanced through the donation of computers, printers, and photocopy machines, with benefits for natural resource management and biodiversity conservation activities in the KCA.

# Activity 1.3.7: Establish community-based processing facilities and support enterprise development, market linkages, value-added approaches, and market information systems.

#### Country: Nepal

In Nepal in AHM Project Year 3, WWF provided support to the Kangchenjunga Conservation Area Management Council (KCAMC) to complete establishment of a local community-managed essential oil processing plant in Yamphudin Village that was begun in AHM Project Year 2. This processing plant became operational in February 2015 and proceeds from this sustainable community enterprise will be used for conducting a variety of community development and conservation projects in Yamphudin. A total of 275 people (140 Women) from 50 households will be benefit from the enterprise.

#### Outputs/Results:

• One sustainable, community-managed enterprise established that will fund community development and biodiversity conservation activities benefiting 275 people (140 Women) from 50 households.

Activity 1.3.11: Promote sustainable Community Based Tourism (CBT) by strengthening existing initiatives of home stays and sustainable tourism practices, and engaging private sector, investors, and operators.

Country: Nepal

In Nepal in AHM Project Year 3, WWF supported repair of 3.5 km of the main Tapethok to Lelep trekking route which was damaged by landslides and rockfalls during the April 25, 2015 earthquake. In addition WWF also supported repair of two damaged bridges on this route at Tapethok and Chhiruwa Villages. Work on all trail and bridge repairs was completed in June 2015 and ensured that this major trekking route remained open for both tourists and KCA residents.

## Outputs/Results:

• Trails and bridges along the main trekking route in the KCA were repaired following damage caused by the April 25, 2015 Nepal earthquake, benefitting approximately 400 local residents (200 women) by keeping this route open for both locals and tourists.

#### Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites

Activity 1.4.5: Begin radio-tracking of snow leopards using GPS collars to collect information on home range size, habitat type and preferences, hunting behavior and frequency, and activity patterns.

#### Country: Nepal

In Nepal in AHM Project Year 3, WWF continued to receive location data from a male snow leopard first fitted with a satellite GPS tracking collar in the Kangchenjunga Conservation Area (KCA) in November 2013 until the collar dropped off as scheduled on September 15, 2015. During this time, the snow leopard crossed from Nepal into Sikkim, India several times, providing invaluable information on transboundary movements and habitat use of snow leopards in the Kangchenjunga Region.

In November 2014, a follow-up collaring expedition to collar a second snow leopard was launched in the western KCA's Yangma Valley. This expedition was a collaborative effort of WWF, the Department of National Parks and Wildlife Conservation (DNPWC), the National Trust for Nature Conservation (NTNC), the Kangchenjunga Conservation Area Management Council (KCAMC), KCA Snow Leopard Conservation Committees (SLCC) and local residents. Unfortunately, no snow leopards were caught when four weeks into the expedition a 2-foot snowfall in mid-December put the network of snares out of commission and prematurely brought an end to the expedition. However, an excellent system of snare site locations, trap transmitter alarm monitoring, and team trap checking was set up around Yangma Village, so the network was quickly and efficiently re-setup in the spring of 2015. Nevertheless, one snow leopard was sighted and briefly filmed before the expedition team returned to Kathmandu.

From April 20-June 1, 2015, WWF launched a second snow leopard collaring expedition in the KCA's Yangma Valley with co-financing from WWF UK. The collaring mission was led by the task force appointed by the technical team of DNPWC, NTNC and WWF Nepal. Citizen scientists from the Yangma Village Snow Leopard Conservation Committees (SLCC) were mobilized for field work. Once again, this expedition was a collaborative effort of WWF, the Department of National Parks and Wildlife Conservation (DNPWC), the National Trust for Nature Conservation (NTNC), the Kangchenjunga Conservation Area Management Council (KCAMC), KCA Snow Leopard Conservation Committees (SLCC) and local residents. A total of 28 snares were set in the Yangma using the sites chosen in November 2014. On May 21, 2015, an adult male snow leopard was captured, fitted with GPS collar and successfully released in the wild. Unfortunately, the satellite tracking function on the collar failed on June 10, 2015 after only 20 days of operation, although the VHF tracking frequency on the collar is still functioning and can be received on a hand-held antenna when the collared snow leopard is in range. This second collared snow leopard has also been photographed by camera trap and is still wearing its collar, and an attempt will be made to recapture the animal in the spring of 2016.

### Outputs/Results:

• In the Kangchenjunga Conservation Area (KCA), one snow leopard continued to be tracked by satellite GPS tracking collar while a second was tracked for 20 days by satellite GPS tracking collar, providing invaluable information on migration and habitat use of these cats in the KCA.

- The snow leopard collaring expeditions represented a joint effort of WWF, the government of Nepal, the KCA Management Council, and local community groups and residents which greatly increased support for snow leopard conservation activities in the KCA and beyond.
- In total 27 People (3 Women) participated in the autumn 2014 expedition while 17 People (All Men) participated in the spring 2015 expedition.

Activity 1.4.6: Train local community members such as livestock herders to be citizen scientists conducting monitoring of snow leopard populations, prey species, and threats to snow leopards (e.g. poaching, retaliatory killing, and habitat degradation) and to conduct anti-poaching efforts through local SLCCs and other wildlife protection organizations.

# Country: Nepal

In Nepal in AHM Project Year 3, WWF organized a two-day citizen scientist training on snow leopard camera trap and sign surveys, setting snares for collaring snow leopards with satellite GPS tracking collars, and the significance of this research for snow leopard conservation. In total, 22 representatives (2 Women) from the Kangchenjunga Conservation Area Management Council (KCAMC), Snow Leopard Conservation Committee (SLCC), local community members, Department of National Parks and Wildlife Conservation, and WWF (2 only) were trained. These participants also received two weeks of practical field training during the actual set up of the snow leopard snare and camera trap networks. This training was held at the expedition research base in Yangma Village, KCA on November 24-25, 2014 and greatly increased community awareness and support for local snow leopard conservation efforts. Participants then immediately put their training to use in assisting the snow leopard collaring expedition in Activity 1.4.5 (above) with site selection for setting snares and in monitoring snares and camera traps during both the autumn 2014 and spring 2015 expeditions.

#### Outputs/Results:

- 22 KCA residents and scientists (2 Women) KCA are trained on how to monitor and snare snow leopards for research purposes and immediately put their new skills to work assisting the WWF autumn 2014 and spring 2015 snow leopard collaring expeditions.
- Interest in and support for snow leopard conservation activities in the KCA is greatly increased through widespread community participation.

# Activity 1.4.13: Provide technical and financial support to forest departments and communities to protect habitat.

#### Country: Nepal

In Nepal in AHM Project Year 3, WWF continued to provide support to the Kangchenjunga Conservation Area Management Council (KCAMC) to improve project management, project monitoring, financial management, and coordination with relevant district line agencies and

stakeholders, such as the Department of National Parks and Wildlife Conservation (DNPWC). In this regard, WWF supported the holding of two KCA management meetings. The first was held from January 23-24, 2015 in at the KCA office in Lelep and was attended by 14 People (5 Women), all KCAMC members. The second was held from April 25-26, 2015, also in Lelep, and was attended by 13 People (5 Women), again, all KCAMC members. At these KCAMC management meetings, topics of discussion included a review of minutes from the previous meeting, AHM Project activity progress, KCA management issues, KCA finances, and future funding opportunities.

#### Outputs/Results:

• Two meetings of KCAMC were held to discuss project progress and management in the KCA that were attended by 14 People (5 Women).

#### **Pakistan**

# <u>Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.</u>

<u>Activity 1.1.5:</u> Raise awareness and provide education about the role of predators (e.g. snow leopards) in maintaining ecological health of pastures.

#### Country: Pakistan 1.1.5A

In Pakistan in AHM Project Year 3, WWF organized a snow leopard and climate change impact guest lecture and quiz competition for school nature club members in Booni Village, Chitral District on March 24, 2015. A total of 50 People (25 Women) participated in the event including school nature club members, teachers, wildlife experts, and glacial lake outburst flood project workers. This event succeeded in raising awareness amongst students about wildlife and climate issues affecting their community and their role in mitigating these pressing issues.

#### Outputs/Results:

- 50 People (25 Women), primarily students, had their awareness of wildlife conservation and climate change issues affecting their community increased.
- Support for AHM Project activities in the vicinity of Booni Village is increased.

#### Country: Pakistan 1.1.5B

In Pakistan in AHM Project Year 3, WWF in cooperation with the Gilgit-Baltistan Education Department and the Hoper Conservation and Development Organization (HCDO) held a climate change seminar for students in Hoper Valley on May 5, 2015. The purpose of this seminar was to raise awareness and understanding about climate change and its impact on water resources and biodiversity. The seminar also provided students with insight into environmental dynamics in mountain areas of Pakistan, as well as challenges and solutions for issues of environmental conservation. In total, 700 People (400 Women) participated.

#### Outputs/Results:

- 700 People (400 Women) including students, other local youth, and teachers from Hoper Valley had their awareness raised about climate change and its impacts.
- Participants were also sensitized about the increasing risk of climate induced disasters.

#### Country: Pakistan 1.1.5C

In Pakistan in AHM Project Year 3, held a series of 6 conservation awareness raising programs in Gilgit-Baltistan that were attended by approximately 5300 people (2050 Women), including the local community members, school and university students, and teachers from the AHM Project region (Table 6). These events were held to mark World Wildlife Day, International Women's Day, International Day for Biological Diversity, World Environment Day and the Hoper Valley Cultural Revival Festival. At these events, topics discussed included wildlife conservation issues, particularly concerning snow leopards and their prey species; climate change and its impacts on local communities in the project region;

climate adaptation principles and methods; and women in development, among others. Notably, WWF distributed posters, brochures, biodiversity fact sheets on Central Karakorum Naitonal Park, and WWF's quarterly magazine Natura, which contained further information on issues discussed at these events. In organizing and holding these events, WWF cooperated with a wide array of local and international partners, as noted in Table 6 below.

#### Outputs/Results:

- 5300 People (2050) have their awareness raised concerning a variety of wildlife conservation and climate change issues affecting the AHM Project region of Gilgit Baltistan.
- Support for AHM Project activities in Gilgit-Baltistan is increased.

**Table 6.** WWF-funded awareness raising events held in Pakistan in AHM Project Year 3.

Event	Date	Location	Partners	Partici -pants	Women
World Wildlife Day	March 3, 2015	Gilgit, GB	GBFWED, SLF, WCSDO, various CBOs	300	100
International Women's Day	March 8, 2015	Karakoram International University (KIU) Gilgit, GB	ICIMOD, AKRSP, PARC, KIU	800	700
International Day for Biological Diversity	May 22, 2015	Hoper Valley, GB	HCDO and Hunza-Nagar Education Department	200	150
World Environment Day	June 5, 2015	Karakoram International University (KIU) Gilgit, GB	ICIMOD, Serena Hotel, AKRSP, PARC, KIU	1000	600
Cultural Revival Festival	August, 19-21, 2015	Hoper Valley, GB	HYO, HCDO, AKRSP, GB Tourism Department	3000	500
Totals					2050

Activity 1.1.10: Work with tribe-based traditional resource management groups to build capacity for better resource management, including curtailing illegal hunting, restricting free grazing near core habitat, and watershed conservation.

### Country: Pakistan (1.1.10A)

In Pakistan in AHM Project Year 3, WWF developed a conservation and development plan through a participatory process for the Laspur Valley, Chitral, Khyber Pakhtunkhwa (KP). Focus group discussions were held in Laspur on October 4, 2014 with 20 participants (6 Women) attending the discussion sessions, including both village elders and youth. This process assessed the current situation in Laspur and identified issues and actions that can be taken to ensure sustainable utilization of available natural resources. The Findings of the discussion group served as a basis for writing the plan, which was shared with community members and other stakeholder for comments. Comments received were then incorporated

into the final plan which was presented to residents of Laspur for approval by local village conservation committees. The conservation and development plan has since been finalized and approved by relevant authorities and has been handed over to local leaders in the Laspur Valley for implementation.

### Outputs/Results:

• One conservation and development plan was prepared through a participatory process that will be implemented by village and district governments.

## Country: Pakistan (1.1.10B)

In Pakistan in AHM Project Year 3, WWF signed an MoU with the Hoper Conservation and Development Organization (HCDO) in Gilgit-Baltistan December 20, 2014 to provide support for establishment of a formal HCDO office. To this end, WWF provided partial support (USD 1000) for construction of this office with the remainder being paid for by the HCDO. The office is expected to be completed in spring 2016 and will serve as a work place, meeting place, and central records depository for the HCDO and other community stakeholders. Upon completion, WWF will also provide initial stationary supplies, a computer, and furniture to the HCDO. In addition, in late March 2015, WWF also donated one computer to the Sor Village Conservation Committee (VCC) at the AHM Project site in the Laspur Valley, Chitral District in order to improve this VCC's data management, record keeping, communications, and information access.

# Outputs/Results:

- A small office for the Hoper Conservation and Development Organization (HCDO), the AHM Project's primary local partner in Gilgit-Baltistan, is currently being constructed which upon completion will increase the organizational capacity of this group to design, conduct, and manage conservation and natural resource management activities.
- The capacity of the Sor Village Conservation Committee, one of two primary AHM Project local partners in Chitral, is increased with respect to managing conservation and natural resource projects through donation of a computer.

#### Country: Pakistan (1.1.10C)

In Pakistan in AHM Project Year 3, WWF participated in several Hoper Conservation and Development Organization's (HCDO) progress review meeting held in Hoper Valley, GB, where AHM Project matters were discussed at length (Table 7). The first was held on October 12, 2014 at which AHM project activities in Hoper up to that date were evaluated, and it was decided that the HCDO will conduct monitoring of tree planting and fodder cultivation sites with the help of village wildlife guards. A total of 30 People (All Men) participated in this meeting. The second meeting was held on March 8, 2015, with one major outcome of this meeting being that it was decided to plant 2000-2500 fruit trees on community lands in spring. A total of 35 People (All Men) participated in the meeting. The third meeting was held on June 4, 2015, during which sites for the re-construction of flood and avalanche-damaged irrigation channels and construction of a water storage tank and a protective riverbank flood protection wall were selected. These activities were later

completed in August and September 2015 (see Activity 1.2.2, below). A total of 20 People (All Men) participated in this meeting.

# Outputs/Results:

- A total of about 40 People (All Men), including HCDO members and other village leaders participated in the three HCDO progress review meetings.
- These participants provided useful insight on improving design and implementation of AHM Project activities.

**Table 7.** Summary of Hoper Conservation and Development Organization (HCDO) AHM Project progress review meetings held in AHM Project Year 3.

Location			Women
Hoper Valley	October 12, 2014	30	0
Hoper Valley	March 8, 2015	35	0
Hoper Valley	June 4, 2015	20	0
Т	otals	85	0

# Country: Pakistan (1.1.10D)

In Pakistan in AHM Project Year 3, WWF organized a one-day training on writing conservation and natural resource management grant proposals in Chitral Town on September 8, 2015. This training was attended by 22 People (13 Women), including local community group members, university faculty, and university graduate students. Topics discussed at the training included fund raising methods, searching for appropriate grant programs, proposal writing, and proposal budgeting.

- 22 People (13 Women), including local community group members, university faculty, university graduate students, were trained on applying for conservation and natural resource management grants.
- Capacity of participants was increased with respect to designing and applying for their own conservation and natural resource management grants.

#### **Sub-objective 1.2: Increase community resilience to climate change impacts.**

Activity 1.2.1: Work with local communities to implement adaptation actions identified in climate change vulnerability assessments that reduce vulnerabilities of communities, high mountain ecosystems, and snow leopards.

#### Country: Pakistan - 1.2.1A

In Pakistan in AHM Project Year 3, WWF continued work on preparation of a climate vulnerability assessment and adaptation strategy for the AHM Project areas of Chitral and Gilgit-Baltistan. During this reporting period, WWF conducted further household interviews and focus group discussions on climate change in Chitral, KP and Hoper Valley, GB in February 2015. Topics discussed at this time included perceptions of the impacts of climate change on rural livelihoods, ecosystems, water resources, and current local coping strategies for dealing with these impacts. WWF also shared climate data from the project region for the 1980-2010 period with researchers at Columbia University who are currently analyzing it. Results of the household interviews, focus group discussions, and climate data analysis were incorporated into the draft climate vulnerability assessment and adaptation strategy. The first draft of the climate vulnerability assessment report has been completed and will soon be circulated to relevant stakeholders for review and comments, after which the vulnerability assessment will be finalized and used as a basis for developing a formal climate adaptation strategy for the AHM Project region of Pakistan.

#### Outputs/Results:

- A draft climate change vulnerability assessment report has been prepared for the AHM Hoper Valley, GB and Chitral, KP project sites.
- Based on findings of this climate vulnerability assessment, WWF will develop a formal climate change adaptation strategy for the AHM GB and KP project sites in AHM Project Year 4.

Activity 1.2.2: Work with local institutions to promote best land management practices, and enhance crop productivity and climate resilience through rainwater harvesting, small-scale storage and drought and pest-tolerant crops.

#### Country: Pakistan - 1.2.2A

In Pakistan in AHM Project Year 3, WWF organized initial watershed management surveys for two small river basins in AHM Project areas of Chitral and Gilgit-Baltistan. The goal of these surveys was to begin developing and implementing demonstration climate-smart watershed management plans at these sites. To this end WWF hired a consultant in February 2015 to conduct the surveys which examined the effects of climate change impacts, deforestation, and pasture degradation on local watersheds and water provision. The consultant conducted a literature review in February 2015 and made site visits to Hoper Valley, GB and the Laspur and Rumboor Valleys in Chitral in March 2015. During these site visits, the consultant met with important stakeholders for this activity, including staff of district wildlife, livestock, forest and agricultural departments as well as other local leaders. On August 23, 2015 the consultant submitted a survey report and midterm evaluation of AHM intervention in the project areas both in Chitral and GB. However, start of development

of the climate-smart watershed management plan was been delayed due to late completion of the survey report and summer flooding in northern Pakistan.

#### Outputs/Results:

• The process of developing watershed management plans for two small river basins in the AHM Project region of northern Pakistan was initiated and will continue into AHM Project Year 4.

#### Country: Pakistan - 1.2.2B

In Pakistan in AHM Project Year 3, as one strategy to improve water security in the Hoper Valley, Gilgit-Baltistan, WWF, in cooperation with the Hoper Conservation and Development Organization (HCDO) and the local government, supported construction of a clean water delivery and storage system in Hakalshal Village. Prior to construction of this system, residents of Hakalshal collected water from an open stream for home use, and consequently suffered from a high incidence of waterborne disease such as diarrhea and typhoid. In order to remedy this situation, in August 2015 pipes were installed between the village and a distant clean-water spring and a 4320 ft<sup>3</sup> tank built to store water delivered from this spring. This water delivery and storage system has multiple taps located throughout the village and benefits about 1600 People (800 Women) from 200 households.

#### Outputs/Results:

- Water security of 1600 People (800 Women) in Hakalshal Village is improved by installation of a clean water delivery and storage system in the village.
- Installation of the clean water system should reduce disease and improve livelihood security in the village.
- Awareness of AHM Project objectives and activities is increased in Hakalshal Village.

#### Country: Pakistan - 1.2.2C

In Pakistan in AHM Project Year 3, as one adaptation strategy to increase water security, WWF supported an irrigation system improvement activity in the Daranchi Nullah area of Hoper Valley, GB in August 2015 that will improve the water security for Rathal and Yar Giram Villages. At this site, an important village irrigation channel and intake system has been repeatedly damaged by climate related hazards such as increased frequency of flooding and avalanches. Work carried out in this area included reinforcing stream water intake points with concrete and also lining irrigation channels with concrete. In addition, for certain extremely hazard prone sections of this irrigation system, buried metal pipes were installed to minimize threats from avalanches and flooding. Finally, a 50 meter long flood protection wall was also built along the river to prevent loss of agricultural fields and homes to rapid flood erosion along a particularly high risk section of river.

#### Outputs/Results:

• Water security is improved for about 800 People (400 Women) from 100 households in 2 farming villages in the Hoper Valley, and consequently their livelihood security is also improved.

- About 240 People (120 women) from 30 households benefit from construction of a flood protection wall protecting both agricultural terraces and homes from flood erosion damage.
- Ability of local residents to adapt to the increased threat of climate-related disasters is improved.

# Activity 1.2.3: Promote climate-smart agricultural and grazing practices that maintain healthy pasture for livelihoods and wildlife (e.g. rotational grazing and controlled pastureland burning).

#### Country: Pakistan - 1.2.3A

In Pakistan in AHM Project Year 3, WWF worked to establish a system of improved pasture management in Sor Village in the Laspur Valley, Chitral, KP, where 90 percent of the community engages in livestock herding that results in much higher grazing pressure than elsewhere in Chitral District. WWF presented the need to improve pasture management in Sor at a community meeting on April 5, 2015 attended by 10 People (All Men). After much discussion within the community, agreement was reached to establish an initial grazing set aside for a period of three years. On June 4, 2015, residents of Sor Village passed a resolution to establish a trial 396 ha grazing set aside in the Zhoya Zhoe drainage for a period of three years. During this period, all grazing of livestock will be banned at this site to allow vegetation to recover from years of overgrazing, with anticipated benefits for local grassland ecosystem resilience, local wild ungulate populations, primarily ibex, as well as for watershed management. After this three year trial period, the benefits of the grazing set aside activity will be reviewed to improve design of future pasture management activities in the Laspur Valley.

#### Outputs/Results:

- Livestock grazing pressure it the Zhoya Zhoe drainage is eliminated allowing local pasture vegetation to regenerate itself with benefits for wildlife, primarily ibex.
- Creation of the set aside contributes to improving the resilience of local grassland ecosystems to climate change.

#### Country: Pakistan - 1.2.3B

In Pakistan in AHM Project Year 3, WWF provided seeds for planting alfalfa as a fodder crop on marginal lands at two sites. The purpose of this activity was to increase winter fodder supplies for stall feeding livestock to reduce winter grazing pressure on alpine pastures as one strategy for increasing resilience of alpine grasslands to climate change impacts. The first site was a 7.6 ha area of degraded lands at the Hoper Valley AHM Project site in Gilgit-Baltistan that was planted in May 2015. Preliminary feedback from participants stated that alfalfa production is going well, providing benefits to 600 People (~300 Women) from 75 families in Hoper who will be able to reduce their use of winter pasture use this year. The second site was a 2 ha plot of marginal land in the Rumboor Valley of Chitral District that was planted in May 2015. Unfortunately, the entire alfalfa crop for this second plot was destroyed by extreme flooding in July and August of 2015.

#### Outputs/Results:

- A good harvest of alfalfa the Hoper Valley will provide increased winter feed for stall feeding livestock and will reduce winter grazing pressure on alpine pastures by about 10 days per winter.
- Reduced grazing pressure on alpine pastures contributes to increasing the resilience of alpine grassland ecosystems to climate change impacts.

#### Activity 1.2.3C

In Pakistan in AHM Project Year 3, WWF continued to support planting of fast-growing native poplar, willow, and Russian olive trees on degraded lands in 7 villages at project sites in the Hoper Valley, GB, in May 2015. These trees will eventually mitigate land degradation issues, improve watershed management, relieve timber shortages, increase wildlife habitat, and provide fodder for livestock, thus serving as one effective climate adaptation strategy for improving livelihoods and natural resource management in participating project villages. This work will provide benefits to about 1880 People (940 Women) from 235 households.

#### Outputs/Results:

- 10,000 fast growing multipurpose trees were planted on 5 ha of land in 7 villages in Hoper Valley, GB, improving land and watershed management and eventually reducing woodcutting pressure on natural forests in the valley.
- Planting of trees contributes to improving water security and mitigating climate change impacts on Hoper Valley such as by increasing infiltration, reducing runoff, and reducing soil erosion.

<u>Activity 1.2.4:</u> Organize local campaigns and workshops to raise awareness on climate change and adaptation actions on agriculture, especially among indigenous, marginalized, and poor populations.

#### Country: Pakistan - 1.2.4A

In Pakistan in AHM Project Year 3, WWF and Radio Pakistan's Gilgit studios produced a 30-minute long radio program highlighting the importance of planting trees for climate adaptation and watershed management. This public awareness-raising program was broadcast in Gilgit-Baltistan on Febuary 12, 2015.

#### Outputs/Results:

 One 30-minute radio program produced that reached thousands of listeners with a message highlighting the importance of tree planting for protecting the local environment.

#### Sub-objective 1.3: Enhance community engagement in conservation.

Activity 1.3.8: Promote livelihood activities (e.g. agribusiness, vegetable gardening, livestock rearing, and horticulture) that are climate-smart and contribute to conservation of snow leopard habitat and wetlands.

#### Country: Pakistan - 1.2.4A

In Pakistan in AHM Project Year 3, WWF and the Hoper Conservation and Development Organization (HCDO) partnered to establish a vocational training center for women in the Hoper Valley, GB on June 15, 2015. This center will provide training to local women on modern handicraft making techniques and diversification of product line to improve household incomes as one part of a broader climate adaptation strategy for livelihoods in the AHM Project region. Products currently being produced include rugs, shawls, gloves, socks and other products made from local wool which will be sold in markets in Hoper, Nagar, and Aliabad Hunza and through outlets of the Karakoram Area Development Organization located in Gilgit Town, GB, and Aliabad Hunza Town, GB. WWF is providing initial support to the HCDO to conduct trainings for three months in a temporary location. Eventually the training center will be housed in the new HCDO office that is currently under construction (see Activity 1.1.10B). So far 40 women have been trained by the local artisans.

In the Laspur Valley, Chitral, the vocational center established in Raman Village in AHM Project Year 2 has continued handicraft and sewing trainings for local women, and to date 240 Women have been trained. Products produced are sold in local markets as well as in the main market in Chitral town through agreements with local shopkeepers or through male relatives who work as traders. Participating women in Chitral are currently earning USD 50 to USD 150 per month from the sale of their products.

- A vocational training center with an emphasis on wool handicrafts was established in Hoper Valley, GB that is currently training 40 People (All Women) to produce handicrafts for sale in local market towns.
- In AHM Year 3, the vocational training center established in Chitral has trained an additional 215 People (All Women).
- Livelihood security for these women and their families is improved as part of a broader climate adaptation strategy for diversifying local livelihoods.
- Awareness and participation of local women in other AHM conservation activities is increased.

#### Sub-objective 1.4: Conserve snow leopard and its habitat in priority sites.

Activity 1.4.2: Conduct population survey in Gilgit-Baltistan and develop GIS-based species distribution maps for snow leopard and prey species, and prepare species conservation plan in consultation with partners and with approval of district government.

#### Country: Pakistan - 1.4.2A

In Pakistan in AHM Project Year 3, WWF prepared a concept paper for developing a provincial-level snow leopard conservation action plan for Khyber Pakhtunkhwa (KP) Province in October 2014. The goal of this plan will be to better protect snow leopards, their prey, and habitat. This concept is currently being shared with major stakeholders and will be reviewed and modified as necessary during a planned consultative stakeholder workshop. At this time the conservation action plan will be drafted and after the workshop the plan will be presented to the KP Wildlife Department for review and adoption. However, further work on this plan was postponed until AHM Project Year 4 due to the summer flooding disaster.

#### Outputs/Results:

• The process of developing a provincial level snow leopard conservation action plan for Khyber Pakhtunkhwa was initiated and will continue in AHM Project Year 4.

#### Country: Pakistan - 1.4.2B

In Pakistan in AHM Project Year 3, WWF conducted three snow leopard sign and prey species surveys. The purpose of these surveys was to assess the status of snow leopard and ibex populations at AHM Project sites in Gilgit-Baltistan (GB) and Chitral, with preliminary results showing stable populations of both species. The first survey was conducted from December 8-14, 2014, in the Shaltar, Bualtar, Meir, Hamdar, Barpu, and Daranchi areas of the Hoper Valley, GB and was jointly conducted by WWF, Gilgit-Baltistan Forest, Wildlife and Environment Department (GBFWED), GB Parks Department, local village wildlife guards (VWG), and local livestock herders who were trained as citizen scientists in previous project years. The second snow leopard sign and prey species survey was conducted from June 12-16, 2015 in the Rumboor Valley, Chitral District, KP and was jointly conducted by WWF and Chitral Wildlife Department staff. The third snow leopard sign and prey species survey was carried out in the Hoper Valley, GB from July 12-18, 2015, and was again conducted jointly by WWF, GBFWED, GB Parks Department, local village wildlife guards, and local livestock herders who were trained as citizen scientists. Notably, the July 2015 survey counted 268 ibex individuals in Hoper Valley, an increase of 155 individuals since WWF's 2013 survey in the same area. Potential snow leopard scat samples collected during these surveys are currently undergoing DNA analysis to further refine snow leopard population estimates at the survey sites. Findings of these surveys will be used to improve conservation efforts at AHM Project sites in northern Pakistan.

- Three snow leopard and prey species surveys were successfully carried out with the
  participation of local citizen scientists, the results of which will be used to improve
  conservation efforts at AHM Project sites in northern Pakistan.
- Reports on survey findings are currently being prepared.

Activity 1.4.8: Establish a watch and ward system of Village Wildlife Guards to protect snow leopards and other species against hunting and poaching in Gilgit-Baltistan and Chitral.

#### Country: Pakistan

In Pakistan in AHM Project Year 3, WWF continued to support village wildlife guards (VWG) active in the Laspur and Rumboor Valleys, Chitral and in Hoper Valley, GB. In the Laspur Valley, Chitral, the two village wildlife guards (VWG) continued to work with Laspur residents and the Khyber-Pakhtunkhwa Wildlife Department to stop the illegal hunting and trade of wildlife in the Phargram Gol and Bashqar Gol areas of Laspur, patrolling a total area of 21,000 ha of important wildlife habitat. In the Rumboor Valley, three village wildlife guards trained by WWF in AHM Project Year 2 continued their work in AHM Project Year 3, but are now supported financially by the Chitral Gol Community Development and Conservation Association. In Gilgit-Baltistan, the two VWGs based in Hoper Valley have been successful in minimizing poaching of wild predators and prev species. The Hoper Conservation and Development Organization (HCDO) is now planning to hire two VWGs to patrol remote high altitude pastures to prevent poaching of snow leopards and their prey species and monitor both natural and planted forest cover, planted fodder crops, and grazing activities in alpine pastures. At present, monthly stipends for VWGs are about USD 50/month, a cost which is shared by both WWF and participating village conservation committees.

#### Outputs/Results:

- Local village wildlife guards are presently conducting patrols and effectively reducing wildlife poaching, illegal grazing, and illegal wood cutting as well as conducting snow leopard and prey species monitoring.
- Presence of these VWGs has increased community awareness and participation in conservation activities and has kept provincial wildlife departments informed about conservation issues as they arise.

#### **Additional Pakistan Activities**

#### Country: Pakistan

In Pakistan in AHM Project Year 3, WWF provided disaster relief to residents of AHM Project communities in the Laspur and Rumboor Valley that were badly affected by the summer 2015 flooding in Chitral District. These floods washed away agricultural lands, orchards, pastures lands, riverside forests, and a number of homes. At these sites, WWF distributed food, drinking water purifiers, and solar lanterns based on individual need, with village conservation committees identifying the most severely affected families. WWF staff and village conservation committee leaders jointly distributed these items from August 10-18, 2015 providing assistance to more than 200 families. Funding for this work was provided by WWF and Qurshi Industries Pvt. Limited.

## Objective 2: Improve transnational collaboration on climate change adaptation and snow leopard conservation in Asia's high mountain landscapes.

The approach to achieving the Asia High Mountains Project's regionally-focused Objective 2 is four part and involves striving to: 1) build international cooperation for protection of Asia's high mountain landscapes and snow leopard conservation through the Global Snow Leopard and Ecosystem Protection Program (GSLEP) secretariat, 2) facilitate discussions on climate change and snow leopard conservation between individual range countries and at a regional scale, 3) update range-wide information on snow leopard trafficking and provide this information to national and regional wildlife law enforcement networks, and 4) work to build a range-wide network for snow leopard conservation and to address other critical issues facing Asia's high mountain regions, such as climate change and water security. In AHM Project Year 3, good progress was made in all four areas. Detailed regional activity descriptions follow.

#### **Regional Activities**

<u>Sub-objective 2.1: Building cooperation through the Climate Summit for a Living Himalayas and its regional "Framework of Cooperation" for protection of Asia's high mountain landscapes and snow leopard conservation.</u>

## Activity 2.1.9: Convene Regional Meeting of Himalayan Experts on Glaciers and the Water Resource Implications of Glacier Retreat.

#### Country: Bhutan (UWICE)/Regional

In Bhutan in AHM Project Year 3, WWF provided support to the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) for holding the Bhutan International Glacier Symposium at UWICE in Bumthang Dzongkhag from April 16-18, 2015 (see agenda, Annex 9). This three-day meeting featured presentations on glacier research, particularly with respect to climate change impacts on glaciers, by researchers from the Bhutan Water Partnership, Columbia University's Lamont-Doherty Earth Observatory, Bhutan's Department of Geology and Mines, ICIMOD, the University of Utah, Brigham Young University, the University of Bern, the Geological Survey of India, and the University of Jammu. Notably, presentations focused primarily on the Bhutan and India Himalaya. In total, approximately 56 People (10 Women) attended this meeting, including invited international researchers, UWICE Staff, Bhutanese government workers from various agencies, and university students, among others.

- 56 People (10 Women) have their awareness raised concerning glaciological and climate change research methods as well as concerning climate change impacts on glaciers in the Himalaya and beyond.
- Agreements are reached between participating researchers and various government institutions in Bhutan to continue research on Bhutan's glaciers.

# <u>Sub-objective 2.2: Facilitate discussions on climate change and snow leopard conservation among the range countries.</u>

Activity 2.2.1: Conduct a range wide review of climate change vulnerability, and the impact of climate change on glacier melt rates, the availability of water resources, ecosystems, snow leopard habitat, and downstream communities. Also analyze the effects of regional black carbon emissions on glacial melt rates and review current policy initiatives to manage the impacts of glacial meltoff.

#### Country: Regional (WWF US)

In AHM Project Year 3, WWF finalized and released a regional report titled "Climate Vulnerability in Asia's High Mountains." This report provides an overview of climate change impacts on glaciers, water resources, ecosystems, and livelihoods in snow leopard range areas as well as possible approaches to climate adaptation for this region. The report is available as a downloadable pdf file from WWF's Asia High Mountains Initiative website.

#### Outputs/Results:

- A report reviewing climate change impacts and vulnerability across the major mountain systems of the snow leopard's range has been completed and released.
- This report provides a concise overview of current climate vulnerabilities in the high Asia region that will be a useful resource for conservation and development professionals working in this region.

Activity 2.2.2: Organize a technical meeting of regional experts on climate change and headwaters management to present and refine findings of range wide review, and discuss the intersection of climate change, water security, and snow leopard conservation.

#### Country: Regional (WWF US)

In AHM Project Year 3, WWF organized a half day technical seminar on climate change impacts on snow leopard range areas and water resources on January 28, 2015 as part of the broader AHM mid-project learning and sharing meeting held in Kathmandu (see agenda, Annex 10). Speakers from ICIMOD, Kathmandu University, CARE, and WWF gave presentations on a variety of topics, including an overview of climate change impacts on snow leopard range areas, glaciers, permafrost, and water resources as well as an overview of climate adaptation from both conservation and development perspectives in the Himalaya. Finally, the two new technical reports produced by the AHM Project under Activities 2.2.1 and 2.4.1, namely "Climate Vulnerability in Asia's High Mountains" and "Guardians of the Headwaters: Snow Leopards, Water Provision, and Climate Vulnerability" were formally launched accompanied by a demonstration of their companion Third Pole Geolab website..

- A half day technical meeting brought together a wide variety of technical expertise to present on various aspects of climate change research and adaptation in snow leopard range areas.
- The two new AHM produced climate vulnerability technical reports were presented and launched.
- 63 People (16 Women), primarily conservation workers, have their knowledge of climate change impacts, climate change vulnerabilities, and climate adaptation approaches increased.

Activity 2.2.4: Engage the Central Asian Interstate Commission on Sustainable Development to initiate a dialogue across the Central Asian countries on snow leopard conservation in the face of climate change, and which feeds into revised national snow leopard conservation action plans.

#### Country: Regional (WWF Russia) – 2.2.4A

In AHM Project Year 3, WWF participated in three events organized by the Central Asia Interstate Commission on Sustainable Development (ICSD). The first was the annual meeting of the ICSD held in Dushanbe from November 25-28, 2014, which was attended by 45 People (9 Women). At this meeting, WWF presented an update on the latest developments with respect to WWF's AHM-funded snow leopard conservation and climate adaptation work in the Central Tian Shan of Kyrgyzstan. WWF also presented a summary the Interstate Conference on the Econet CIS Program held in Moscow from October 28-29, 2014, which was held with co-financing from WWF Russia. At this meeting representatives of 10 former Soviet republics, including the five Central Asian states, discussed trans-boundary conservation issues between their nations and opportunities to cooperate on mitigating these issues.

For the second event, with co-financing from WWF Netherlands, WWF participated as an observer organization in a second meeting of the ICSD held in Ashgabat from June 16-18, 2015, which was attended by 38 People (8 Women). Topics of discussion at this meeting included improving the institutional basis for regional cooperation, sustainable development issues in Central Asia, mitigation of climate change impacts, and developing a green economy. Although no formal presentation was made, WWF representatives actively participated in all discussions, providing examples from AHM Project work.

The third event was the workshop on Climate Change Adaptation in the Mountain Regions of Central Asia which was organized by the United Nations Environment Program (UNEP) and the ICSD Regional Mountain Center from September 2-3, 2015, in Almaty, Kazakhstan, which was attended by 35 People (9 Women). At this workshop WWF presented the findings of the AHM-sponsored climate vulnerability assessment for eastern Kyrgyzstan.

In AHM Project Year 3, WWF also participated in two other regional meetings on conservation in Central Asia:

• WWF participated in the "Water and Mountains" section of the UN "Water for Life" conference held in Dushanbe from June 8-11, 2015. At this meeting WWF presented

the successes of AHM Project activities in eastern Kyrgyzstan. In addition, participants reached a tentative agreement to share experiences of conservation and development work in high mountain communities. AHM co-financing for WWF participation at this event was provided by WWF Netherlands.

 With a travel grant provided by GIZ, WWF participated in the GIZ International Workshop on Sustainable Wildlife Management in Central Asia: Practical Experience and Way Forward, held in Ashgabat from August 31-September 3, 2015. At this meeting, background on AHM Project activities on snow leopard conservation was presented and discussed with colleagues from the various Central Asian states. 33 People (11 Women) attended this meeting.

#### Outputs/Results:

- Lessons learned from AHM Project work on snow leopard conservation and climate adaptation in the highland areas of eastern Kyrgyzstan are shared widely in Central Asia amongst a diverse array of government and NGO workers.
- Partnerships are built in Central Asia for regional cooperation on wildlife conservation and climate change adaptation efforts.

Activity 2.2.5: Organize an AHM Project-wide learning and sharing meeting for WWF staff and government and NGO partners with a training emphasis on climate vulnerability assessment and climate adaptation strategy development and implementation for snow leopard range areas.

#### Country: Regional (WWF AHM/WWF US)

In AHM Project Year 3, the AHM Project held a 5-day project-wide learning and sharing meeting from January 26-30, 2015 in Kathmandu, Nepal (see agenda, Annex 10). WWF staff from all 6 AHM Project countries attended as well as specialists from WWF US, WWF Russia, the WWF Hariyo Ban and Living Himalayas Projects, and various government, university, and NGO AHM Project partners such as Snow Leopard Trust (SLT) and CARE. Topics discussed included snow leopard research, community conservation, and livelihoods. However, the main feature of the meeting was a three day training on climate change impacts and adaptation that provided opportunities for review and advising sessions on all project climate vulnerability and adaptation work to date for each AHM Project country. Notably, a half day session of technical presentations by guest speakers was held (see Activity 2.2.2, above). In total, 63 people (16 Women) participated in the meeting.

- 63 conservationists (16 Women) participated in the meeting, sharing their experiences with snow leopard and community conservation and also receiving training on climate change impacts on high mountain areas and adaptation strategies suitable for snow leopard range habitat.
- Increased awareness of other AHM snow leopard and climate-related activities in the region will better inform project activity design and implementation by the respective country offices.

# Sub-Objective 2.3: Update range-wide information on snow leopard trafficking and provide trafficking information to enforcement efforts at the national and regional network levels.

#### Activity 2.3.1: Update information on commercial hunting and trade of snow leopards.

#### Country: Regional (TRAFFIC)

In AHM Project Year 3, TRAFFIC continued compiling snow leopard trade research findings, notably from the September 2014 TRAFFIC market survey of three cities in Afghanistan. An initial rough draft of the planned snow leopard trade report was prepared and reviewed, with the conclusion of the reviewers being that the report needed further work, which has again been delayed due to continued staff turnover at TRAFFIC. In particular, further information is needed on the status of the snow leopard trade in Central Asia. It is now planned to hire someone to work full time on finalization of the report to be released at an appropriate wildlife trade meeting in the summer of 2016. All data gathered will be compiled in TRAFFIC's central wildlife trade data bases.

#### Outputs/Results:

• A draft snow leopard trade report completed and reviewed in September 2015, which will be further refined and completed by the summer of 2016.

# Activity 2.3.2: Develop an action-oriented set of recommendations for reducing illegal trade in snow leopard pelts and other products along the trade chain and inform government enforcement efforts.

#### Country: Regional (TRAFFIC)

In AHM Project Year 3, preliminary recommendations on the illegal trade in snow leopard products were drafted which will be refined and released with the report discussed under Activity 2.3.1, above.

#### Outputs/Results:

• Recommendations for reducing the illegal trade in snow leopard products are drafted and will be released in the summer of 2016.

# Activity 2.3.3: Incorporate recommendations into range-wide dialogues on snow leopard conservation, revision of the Snow Leopard Survival Strategy, national snow leopard conservation action plans, and regional trade initiatives.

#### Country: Regional (WWF US/SLN/SLT)

In AHM Project Year 3, the Snow Leopard Network released the new edition of the Snow Leopard Survival Strategy (SLSS) on October 23, 2014 to mark the occasion of the first International Snow Leopard Day. Notably, this document is the single most important document informing snow leopard conservation efforts worldwide. The SLSS is now

available online at: <a href="http://www.snowleopardsurvival.org/">http://www.snowleopardsurvival.org/</a>. This document was updated by a committee of experts and peer reviewed by Snow Leopard Network (SLN) members and included contributions by WWF and TRAFFIC staff members, who provided a variety of information on trade, general snow leopard research, and climate change (also see Acivity 2.4.4, below). The revised 2014 SLSS is available both as a pdf file and as an online HTML document and is a "living document" that can be quickly updated as new information concerning the status of snow leopards, their prey, habitat, and emerging threats becomes available.

#### Outputs/Results:

• The revised Snow Leopard Survival Strategy, the single most important document informing snow leopard conservation efforts worldwide, is revised with support from the AHM Project, particularly concerning incorporation of climate change and climate smart concepts into the document.

# Activity 2.3.4: Partner and coordinate with INTERPOL through the USAID-funded Project Predator initiative to exchange relevant information.

#### Country: Regional (TRAFFIC)

In AHM Project Year 3, TRAFFIC continued to coordinate with INTERPOL's Project Predator on snow leopard trade issues. Following the recent staffing changes at Project Predator, TRAFFIC worked to establish a relationship with the new project leadership in the expectation of continuing collaboration on combating trafficking in snow leopard products as part of Project Predator's Asian Big Cat mandate. Unfortunately, due to severe weather flight cancellations, TRAFFIC's Senior Director for Asia was unable to participate as planned in the UNDP/INTERPOL-funded Regional Technical Seminar on Prevention of Illegal Wildlife Trade in Central Asia held in Bishkek from September 17-18, 2015. Nevertheless, TRAFFIC provided remote support to INTERPOL and the GSLEP secretariat regarding intergovernmental networking based on TRAFFIC's experiences with the South Asia Wildlife Enforcement Network (SAWEN), which served as a basis for training sessions on intergovernmental information sharing mechanisms at the seminar. This led to a major output from the meeting being the Regional Enforcement Strategy to Combat Illegal Wildlife Trade in Central Asia 2015-2018. TRAFFIC is currently in discussions with INTERPOL to cooperate on holding a snow leopard range-wide wildlife trade enforcement training.

#### Outputs/Results:

• In AHM Project Year 2, TRAFFIC continued coordination with INTERPOL on snow leopard trade issues, including by providing guidance on holding a major regional seminar on combating illegal wildlife trade in Central Asia.

# Activity 2.3.5: Inform actions of SAWEN to promote strengthened enforcement cooperation among SAWEN-member and neighboring countries.

Country: Regional (TRAFFIC)

In AHM Project Year 3, TRAFFIC used its past experience in supporting SAWEN to inform snow leopard-specific dialogues such as the Central Asia wildlife trade enforcement workshop, discussed under Activity 2.3.4, above, notably with respect to developing a regional enforcement strategy for Central Asia. Based on previous efforts by TRAFFIC and the SAWEN Secretariat, establishment of connections between SAWEN and Chinese wildlife trade officials have been agreed to in principle. However, specific engagement on halting trade in snow leopards products between these two parties will require further dialogue.

#### Outputs/Results:

While engagement with SAWEN was minimal during this reporting period,
 TRAFFIC continues to use lessons learned from earlier cooperation with SAWEN to inform design of activities for halting the trade in snow leopard products.

# <u>Sub-objective 2.4: Building momentum through a range-wide network for snow leopard conservation.</u>

Activity 2.4.1: Conduct a range-wide snow leopard vulnerability and grassland degradation analysis using GIS and remote sensing, and use this analysis to identify core snow leopard habitat, potential snow leopard habitat, and the impacts of grassland degradation on water supply.

#### Country: Regional (WWF US)

In AHM Project Year 3, WWF finalized and officially released a regional report titled "Guardians of the Headwaters: Snow Leopards, Water Provision, and Climate Vulnerability." This report provides a regional overview of water provision from snow leopard range areas as well as how future climate change impacts may affect water resource provision in high mountain Asia. The report is available as a downloadable pdf file from WWF's Asia High Mountains Initiative website. In addition, WWF-US worked with a web developer to launch an interactive, dual purpose, website that will utilize a mapping tool to highlight key findings of this report as well as those of the climate vulnerability report detailed under Activity 2.2.1, above. This website has been named the "Third Pole Geolab" and will serve as a go-to database for climate, water resource, and ecological spatial data for snow leopard range areas, such as the maps depicted in the Guardians of the Headwaters report. In addition, WWF has begun discussions with AHM Project partners on using a standardized approach to produce a coordinated set of detailed country-scale map layers to assist in improving conservation planning and management efforts for snow leopards and water provision. Data layers produced will eventually be available from the interactive website described above.

#### Outputs/Results:

- A report reviewing water provision from snow leopard range areas and possible climate change impacts on regional water provision has been finalized and released,
- A companion website to this report with an interactive mapping tool has been launched.
- Awareness of the connection between water resource provision and snow leopard habitat is increased amongst a broad audience, ranging from snow leopard scientists to government decision makers and the general public.

Activity 2.4.4: Review national snow leopard conservation action plans and the revised Snow Leopard Survival Strategy from a climate change adaptation perspective and update these documents to be climate smart.

#### Country: Regional (WWF US/SLN/SLT)

In AHM Project Year 3, as noted under Activity 2.3.3, above, the Snow Leopard Network released the new edition of the Snow Leopard Survival Strategy (SLSS) with contributions from WWF staff members on October 23, 2014. Notably, the WWF US Climate Adaptation Team contributed to the section on climate change impacts and reviewed the entire second edition of the SLSS to make it "climate smart."

- The revised Snow Leopard Survival Strategy is released containing a section on climate change impacts and general revisions for "climate-smartness."
- Awareness of climate change impacts on snow leopard range areas is increased amongst conservationist working in snow leopard range areas.

# Activity 2.4.5: Support a small grants program for site-based and national activities through SLN's Snow Leopard Conservation Grant to support conservation programs across the snow leopard's range.

#### Country: Regional (SLN/SLT)

In AHM Project Year 3, WWF continued to provide support to the Snow Leopard Network's Snow Leopard Conservation Grant Program for a second year of climate change category awards. Under this category, one award was made in December 2014 for a proposal titled "Analysis of temporal variation in prey use and livestock depredation of snow leopards (*Panthera uncia*) in Pakistan and potential links to climate change." This proposal was awarded a total of USD 6416. In addition, the final reports for the three AHM supported grants awarded under this program category in December 2013 have been received while preliminary applications for the third and final year of AHM-supported funding for this program were received and reviewed in August 2015. Decisions on these final AHM-supported awards will be made in December 2015.

#### Outputs/Results:

• One small grant program proposal on links between climate change and variation in snow leopard predation patterns was selected for AHM-supported funding.

# <u>Sub-objective 2.5:</u> Launch the beginnings of the Alliance on Asia's High Mountain Landscapes.

## Activity 2.5.2: Launch the beginnings of an inter-governmental Alliance on Asia's High Mountain Landscapes.

#### Country: Regional (SLT/ WWF AHM)

In AHM Project Year 3, SLT, WWF, UNDP, and the Kyrgyz State Agency on Environment Protection and Forestry co-sponsored the first steering committee meeting of the Global Snow Leopard and Ecosystem Protection Program (GSLEP) Secretariat in Koi Tash, Kyrgyzstan from March 19-20, 2015 (see agenda, Annex 11). High level representatives of 10 of the 12 snow leopard range nation governments participating in this process attended, with only the governments of India and Uzbekistan not represented at the meeting. Also in attendance were representatives of other interested partner organizations, such as GEF, GIZ, FFI, NABU, and the Christensen Foundation. At this meeting, the major outcomes were: 1) the adoption of steering committee operating guidelines, 2) selection of Bishkek as the location for establishment of the permanent secretariat, 3) election by government representatives of the director of the Kyrgyz State Agency on Environment Protection and Forestry and the Pakistan Minister of Climate Change as co-chairs of the secretariat steering committee for a two year term, and 4) adoption of the GSLEP Landscape Management Plan Outline as the major tool for developing plans to secure the 23 priority snow leopard landscapes identified by the 12 range countries in Issyk Kul in June 2014. In total, 75 people (20 Women) attended this meeting. In addition, throughout this reporting period, SLT has seconded an SLT staff member to work with the recently hired secretariat staff to get them up to speed on the Global Snow Leopards and Ecosystems Protection Program (GSLEP) goals and their role in supporting achievement of those goals. Although based in Delhi, this SLT staff member will be residing in Bishkek for several months this summer to work more closely with the secretariat. Next steps for the secretariat and GSLEP implementation will be developing Landscape Management Plans for the 23 selected priority snow leopard landscapes.

#### Outputs/Results:

- The Global Snow Leopard and Ecosystem Protection Program (GSLEP) Secretariat was formally established in Bishkek by consensus of the member snow leopard range states to provide support for implementation of the GSLEP Program adopted at the October 2013 Global Snow Leopard Conservation Forum held in Bishkek.
- GSLEP secretariat steering committee operating guidelines were adopted, co-chairs of
  the steering committee were elected, and the GSLEP Landscape Management Plan
  Outline was adopted as the major tool for developing plans to secure the 23 GSLEP
  priority snow leopard landscapes.

Activity 2.5.3: Provide support to the Global Snow Leopard and Ecosystem Protection Program (GSLEP) secretariat to develop a range-wide program for the conservation of snow leopards and their habitat.

In AHM Project Year 3, WWF provided support to the GSLEP Secretariat in the spring of 2015 to set up its office in Bishkek, which included the purchase of computers, printers, and an LED projector. Programmatically, WWF, SLT, and the GSLEP Secretariat are currently working to design a process for developing climate-smart snow leopard landscape management plans for the 23 GSLEP priority landscapes that will be the main focus of GSLEP implementation. Training of GSLEP national focal points on this landscape management planning process will commence in AHM Project Year 4.

- The GSLEP Secretariat office in Bishkek is opened and equipped and will serve as the headquarters for secretariat staff to provide support to member states for GSLEP implementation.
- The design process for conducting trainings on development of climate-smart snow leopard landscape management plans for GSLEP implementation commences.

#### III. Lessons Learned

#### **Bhutan**

When designing project activities and preparing project work plans it is important to
preview activities with potential beneficiaries to ensure there is sufficient support for
the given activity, particularly when construction of fixed infrastructure is involved.

#### India

When planning summer activity implementation schedules it is important to have an
alternative schedule to implement in the event that natural disasters, such as flooding
and landslides, make implementation of the planned schedule impossible during the
annual summer monsoon period.

#### Kyrgyzstan

• Due to the long delay in establishment of the Khan Tengri National Park resulting from the opposition of local residents, it was decided to begin work at an alternative site, namely the Chon Kyzyl Suu River valley, where residents are more receptive to participating in conservation activities. This clearly illustrated the importance of having an appropriate backup site for project activities.

#### Mongolia

• The value of school eco-clubs in getting school children to enlist the support of their parents for conservation activities was dramatically illustrated through the wildlife trap exchange program conducted at the AHM Jargalant Khairkhan Mountain project site. At this site school eco-club members first tallied the number of wildlife traps owned by their parents and neighbors. Then, with great success, encouraged these adults to exchange the traps for household items to prevent injury to local snow leopards.

#### **Nepal**

• In Nepal, the largest lesson learned was the importance of prioritizing relief work over originally planned activates at project sites in the event of extreme natural disasters to maintain the support of project beneficiaries for conservation activities. In the case of the AHM Project, following the April 2015 earthquake, WWF immediately supported the repair of damaged trails and bridges along the main trekking route in the Kangchenjunga Conservation Area, which was deeply appreciated by local residents.

#### **Pakistan**

• As in Nepal, conducting disaster relief activities in affected project areas turned out to be an unexpected top priority in the summer of 2015. And as an India, the need to have an alternative summer activity implementation schedule was made abundantly clear by the flooding in northern Pakistan this past summer.

#### Regional

• An important lesson learned was the value of holding an AHM Project-wide learning and sharing meeting with climate experts in attendance for helping AHM Project staff and partners broaden their knowledge of various approaches to climate change vulnerability assessment and adaptation in snow leopard range areas.

#### IV. NEXT STEPS AND PRIORITIES

#### Bhutan

In Bhutan in AHM Project Year 4, next steps and priorities will include moving forward on the Watershed Management Division's (WMD) development of climate-smart watershed management plans for the Nikka Chu and Kuri Chu River basins in Wangchuck Centennial Park (WCP). A second priority will be to improve coordination between WCP, the Ugyen Wangchuck Institute of Conservation and Environment (UWICE) and the WMD on Nikka Chu and Kuri Chu watershed management planning activities, particularly with respect toWCP's planned bamboo restoration activity in the Nikka Chu River basin and UWICE's planned climate-smart village activity in the Kuri Chu River basin.

#### India

In India in AHM Project Year 4, next steps and priorities will include finalizing the climate vulnerability assessment for the upper Teetsa River and holding community consultation meetings on its findings for development of locally appropriate climate adaptation activities. A second priority will be strengthening involvement of community members and the Sikkim Forest Department in snow leopard and prey species monitoring. WWF will also continue to promote sustainable tourism practices in Sikkim.

#### **Kyrgyzstan**

In Kyrgyzstan in AHM Project Year 4, next steps and priorities will include moving forward on development of a climate-smart watershed management plan for the Chon Kyzyl Suu River basin. WWF will also lobby relevant authorities to designate the upper Chon Kyzyl Suu basin as a national-level protected area.

#### Mongolia

In Mongolia in AHM Project Year 4, next steps and priorities will include formalizing climate adaptation strategies for the AHM Project region based on WWF's regional climate vulnerability assessment for western Mongolia. A high priority of climate adaptation work in Mongolia will continue to be promoting collective herding amongst small family groups with adjoining pasture lands as one adaptation strategy for reducing grazing damage and increasing resiliency of grassland ecosystems to climate change impacts.

#### Nepal

In Nepal in AHM Project Year 4, next steps and priorities will include launching work in earnest on development of a climate-smart watershed management plan for the upper Tamoor River basin in the Kanchenjunga Conservation Area following a long delay in the wake of the April 2015 earthquake. A second priority will be using the AHM KCA project site as a model for developing and implementing a climate-smart snow leopard landscape management plan in support of Nepal's commitment for implementation of the 12-nation Global Snow Leopard

and Ecosystem Protection Program (GSLEP). This effort will serve as a model for replication at other GSLEP priority sites throughout the snow leopard's range.

#### **Pakistan**

In Pakistan in AHM Project Year 4, next steps and priorities will include developing climatesmart watershed management plans for two small river basins at AHM Project sites in northern Pakistan. As part of the broader climate adaptation strategy for the AHM project region, WWF will continue intensive work with participating village conservation committees to find innovative solutions for mitigating climate change impacts on the region.

#### Regional

In AHM Project Year 4, regional next steps and priorities will include a variety of focus areas. Throughout the 6 AHM Project countries, a top priority will continue to be further development and implementation of climate adaptation strategies for ecosystems, water security, and livelihoods at AHM Project sites. Again, development of climate-smart watershed management plans will be a top priority at the Bhutan, Kyrgyzstan, Nepal, and Pakistan project sites. WWF will work intensively with the Snow Leopard Trust (SLT) and the Global Snow Leopard and Ecosystem Protection Program (GSLEP) secretariat to design and hold a series of trainings for focal points of the 12 snow leopard range states on design and implementation of climate-smart snow leopard landscape management plan in support of GSLEP implementation at the 23 designated GSLEP priority sites. WWF will also work particularly closely with field teams in the 6 AHM Project countries for developing these landscape management plans. Another high priority activity will be completion of the new edition of the TRAFFIC snow leopard trade report, which is now expected to be released in the summer of 2016.

### V. ANNEXES

### **Annex 1: AHM Project Year 3 Activity Status by Country**

### Bhutan

	Activities	Status			
1	Objective 1: Promote climate-smart management of high mountain landscape for sustainable development.				
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.				
Bhutan 1.1.3a	Celebration of International Snow Leopard Day among four schools in project area (Zangtherpo Primary School in Chokhortoe, Bumthang.)				
Bhutan 1.1.3b	Celebration of International Snow Leopard Day Celebration at Haa, Jigme Khesar Strict Nature Reserve (JKSNR)	Completed			
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.				
Bhutan 1.2.1a	Establishment of three water user associations (WUA) in WCP to protect and manage local drinking water sources.	Started- Ongoing			
Bhutan 1.2.1b	Springshed protection activity carried out and clean drinking water is delivered to 23 households in these 2 villages in WCP.	Completed			
Bhutan 1.2.1c	Climate-smart village demonstration.	Started- Ongoing			
Bhutan 1.2.1d	Climate-smart watershed management plan vulnerability assessment.	Started- Ongoing			
Bhutan 1.2.2a	WCP worked in cooperation with UWICE and WWF Bhutan to conduct a climate change adaptation training for officials from various organizations.	Completed			
Bhutan 1.2.2b	UWICE conducted a water scarcity survey in upper Chamkhar Chu watershed of Chokhor Geog (county), WCP.	Completed			
Bhutan 1.2.2c	Cliamte-smart watershed management plan	Started-Ongoing			
Bhutan 1.2.3	WCP staff oversaw renovation of a bridge along an important travel route.	Completed			
Bhutan 1.2.4	3-day climate change adaptation capacity development trainings for local farmers.	Completed.			
Bhutan 1.2.5	UWICE conducted three-day hydro-meteorological monitoring and data management training at UWICE in Lamai Goempa Village, Bumthang.	Completed			
1.3	Sub-objective 1.3: Enhance community engagement in conservation.				
Bhutan 1.3.1	WCP conducted snow leopard awareness raising program in Sephu Geog, Wangdue Phodrang Dzongkhag.	Completed			
Bhutan 1.3.4a	Construction of bear-proof food storage facilities in WCP, Bumthang.	Completed			
Bhutan 1.3.4b	WCP erected an electric fence in Thangyul Village in Nubi Geog, Trongsa dzongkhag.	Completed			
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.				
Bhutan 1.4.1	WCP prepared a draft technical report on the findings of the snow leopard survey titled "Population Status and Distribution of Snow Leopard (Panthera uncia) in Wangchuck Centennial National Park, Bhutan."	Started- Ongoing			

### India

	Activities	Status			
1	Objective 1: Promote climate-smart management of high mountain landscapes for sustainable development.	and snow leopard habitat			
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.				
India 1.1.10	Preparation and distribution of an educational brochure to community members on how to improve the sustainability of caterpillar fungus harvesting.	Completed			
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.				
India 1.2.1	Climate change vulnerability assessment of local communities and natural ecosystems.	Started- Ongoing			
1.3	Sub-objective 1.3: Enhance community engagement in conservation.				
India 1.3.1a	WWF-Lachen Tourism Development Committee organized 3- day environment campaign for teachers.	Completed			
India 1.3.1b	Citizen scientist training for three community members in Lachen Village, North Sikkim.	Completed			
India 1.3.2	Human-Wildlife Conflict socal survey.	Completed			
India 1.3.10	Bio-briquette making training in Lachung Village, North Sikkim.	Completed			
India 1.3.11a	Consultation meeting on strengthening sustainable tourism activities in Khangchendzonga National Park (KNP) at Yuksam, West Sikkim.	Completed			
India 1.3.11b	WWF and the Khangchendzonga Conservation Committee (KCC) conducted training on making handicrafts from waste and discarded material.	Completed			
India 1.3.11c	Meeting among Lachen pipons (village leaders) and community members to impose a village trash collection fees.	Completed			
India 1.3.11d	WWF and the Ecotourism and Conservation Society of Sikkim (ECOSS) began drafting of a tourism policy for Sikkim at the request of the Sikkim Tourism Department.	Started-Ongoing			
India 1.3.11e	Homestay Owner Training Programme at KCC headquarters in Yuksam Village, West Sikkim.	Completed			
India 1.3.11f	Zero Waste Himalaya Day Trash management exhibition.	Completed			
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.				
India 1.4.1	Launch a snow leopard camera trap survey.	Started- Ongoing			
India 1.4.6	Wildlife monitoring survey and anti-poaching patrols at Khangchendzonga National Park (KNP) and its buffer zone.	Completed			
India 1.4.13	Training on biodiversity field survey techniques for field staff of the North Sikkim district Forest, Environment and Wildlife Management Department (FEWMD).	Completed			

Kyrgyzstan

	Activities	Status				
1	Objective 1: Promote climate-smart management of high mountain landscapes and snow leopard habitat for sustainable development.					
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.					
Kyrgyz 1.1.3a	International Snow Leopard Day celebration at Engilchek village and Akshyrak Villages.	Completed				
Kyrgyz 1.1.3b	International Mountain Day celebration at E.Kendyrbajev Secondary School in Barskoon Village, Issyk Kul Province, location of the Sarychat-Ertash State Reserve Headquarters.	Completed				
Kyrgyz 1.1.3c	Children's snow leopard assembly and essay and drawing competitions at Bishkek Secondary School No. 5	Completed				
Kyrgyz 1.1.3d	Earth Day Celebration at Karakolka Village in the buffer zone of the Sarychat-Ertash Reserve.	Completed				
Kyrgyz 1.1.3e	Land of the Snow Leopard Festival at Ak Shyrak Village in the buffer zone of the Sarychat-ertash Reserve.	Completed				
Kyrgyz 1.1.3f	Cooperation with Kumtor Gold Mine to hold a Children's Summer Eco-Camp.	Completed				
Kyrgyz 1.1.6	Facilitate cooperation among stakeholders (e.g. gold mining company "Kumtor") to establish a model of local natural resource management	Delayed Indefinitely				
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.					
Kyrgyz 1.2.1	Climate change vulnerability assessment of Kyrgyzstan's Central Tian Shan region.	Completed				
Kyrgyz 1.2.2	Consultation meetings with local communities on developing a watershed management plan.	Started- Ongoing				
Kyrgyz 1.2.3	WWF signed a 200 hectare pasture lease with the Lipeskoy Village Council for an ongoing rotational grazing demonstration.	Started- Ongoing				
1.3	Sub-objective 1.3: Enhance community engagement in conservation.					
Kyrgyz 1.3.9a	Launch of local development funds (LDF) at Ak Shirak and Engilchek Village.	Started- Ongoing				
Kyrgyz 1.3.9b	Support women from Ak Shyrak and Karakolka Villages in the production and marketing of felt handicrafts as one sustainable alternative livelihood activity that forms part of a broader climate adaptation strategy for the Sarychat-Ertash Region.	Started- Ongoing				
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.					
Kyrgyz 1.4.4	Support monitoring of snow leopards and their prey species in Sarychat-Ertash Reserve.	Started- Ongoing				
Kyrgyz 1.4.9	Installation of second wind-generator with a capacity of 1.5 KW at Sarychat-Ertash Gulotock ranger station.	Completed				
Kyrgyz 1.4.10	WWF in cooperation with the Hunting Department of the State Agency on Environment Protection and Forestry designed and distributed a 2015 calendar poster that features photos of Tian Shan wildlife and highlights increased fines for illegal hunting of snow leopard, argali and ibex.	Completed				

Mongolia

Mong							
	Activities	Status					
1	Objective 1: Promote climate-smart management of high mountain landscapes an for sustainable development.	d snow leopard habitat					
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and cap	Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.					
Mongolia 1.1.3a	International Snow Leopard Day events at Khovd, Altai Region, Western Mongolia.	Completed					
Mongolia 1.1.3b	Annual summer camp for school eco-club members at Uvs Aimag province.	Completed					
Mongolia 1.1.4	Financial and technical support for compiling pasture databases for five soums (counties).	Started-Ongoing					
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.						
Mongolia 1.2.1a	Climate change knowledge, attitude, and practice (KAP) social survey.	Completed					
Mongolia 1.2.1b	WWF cooperated with the Institute of Biology to complete a preliminary climate vulnerability assessment.	Completed					
1.3	Sub-objective 1.3: Enhance community engagement in conservation.						
Mongolia 1.3.1	Campaign called "Let a Cub's Wish Come True" to halt the practice of illegal trapping at Jargalant Khairkhan.	Started- Ongoing					
Mongolia 1.3.4	Learning and sharing meeting on human-snow leopard conflict at Ulaanbaatar.	Completed					
Mongolia 1.3.5	Support to three communities to diversify their livelihoods as one climate adaptation strategy for rural livestock herders.	Started- Ongoing					
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.						
Mongolia 1.4.1	Snow leopard monitoring cameras trap survey at Bumbat Khairkhan and Baatar Khairkhan, Khovd Aimag (province).	Completed					
Mongolia 1.4.5	WWF cooperated with the Mongolian Irbis Center, the Uvs Lake Basin Strictly Protected Area Administration, the Mongolian Academy of Sciences' Institute of Biology, and the Russian Academy of Sciences to place a satellite GPS tracking collar on one female snow leopard.	Started- Ongoing					
Mongolia 1.4.6	Trained a volunteer ranger and equipped him with a spotting scope and tripod to monitor snow leopards and their prey species.	Completed					
Mongolia 1.4.11	Establishment of the Bayan Nuruu Reserve Pasture with an area of 105,200 ha in Darvi Soum (county), Khovd Aimag (province).	Completed					

### Nepal

_	Activities	Status
1	Objective 1: Promote climate-smart management of high mountain landscapes and for sustainable development.	snow leopard habitat
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and capa	acity.
Nepal 1.1.1	Monitoring of CARE field activities at Kangchenjunga Conservation Areas (KCA)-Papung, Olangchung Gola, Yamphudin, Tapethok, Lelep, and Kalikhola VDCs.	Completed
Nepal 1.1.3	CARE put up a total of 11 sign boards in the Kangchenjunga Conservation Area (KCA) with information on KCA regulations.	Completed
Nepal 1.1.9	CARE organized trainings on leadership skills and social inclusion at Kangchenjunga Conservation Area's Tapethok VDC.	Completed
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.	
Nepal 1.2.2	Small scale adaptive irrigation including sprinklers, pipes, and canals in 5 villages.	Completed
Nepal 1.2.3	Water supply, trail improvements, and bridge improvement to improve pasture roatation rates.	Completed
1.3	Sub-objective 1.3: Enhance community engagement in conservation.	
Nepal 1.3.1	Support to strengthen Kangchenjunga Conservation Area (KCA) institutions by donating computers, printers and photocopy machines	Completed
Nepal 1.3.7	Support to the Kangchenjunga Conservation Area Management Council (KCAMC) to complete establishment of the local, community-manged essential oil processing plant.	Completed
Nepal 1.3.11	Repair of 3.5 km of the main Tapethok to Lelep trekking route which was damaged by landslides and rockfalls during the April 25, 2015 earthquake.	Completed
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.	
Nepal 1.4.5	Continued to receive location data from a male snow leopard first fitted with a satellite GPS tracking collar from Kangchenjunga Conservation Area (KCA).	Started- Ongoing
Nepal 1.4.6	Citizen scientist trained on how to monitor and snare snow leopards for research purposes at Yangma Village, KCA.	Completed
Nepal 1.4.13	Two meetings of KCAMC were held to discuss project progress and management in the KCA.	Completed

### Pakistan

	Activities	Status				
1	Objective 1: Promote climate-smart management of high mountain landscapes an for sustainable development.	nd snow leopard habitat				
1.1	Sub-objective 1.1: Strengthen local natural resource institution's governance and capacity.					
Pakistan 1.1.5a	Organized a snow leopard and climate change impact guest lecture and quiz competition for school nature clubs members.	Completed				
Pakistan 1.1.5b	Cooperation with the Gilgit-Baltistan Education Department and the Hoper Conservation and Development Organization (HCDO) to hold a climate change seminar for students.	Completed				
Pakistan 1.1.5c	Organize a series of events: World Wildlife Day, International Women's Day, International Day for Biological Diversity, World Environment Day and Cultural Revival Festival.	Completed				
Pakistan 1.1.10a	Developed a conservation and development plan for the Laspur Valley, Chitral, KP.	Completed				
Pakistan 1.1.10b	WWF provided partial support (USD 1000) for establishment of formal HCDO office.	Started -Ongoing				
Pakistan 1.1.10c	Conservation and Development Organization's (HCDO) progress review meetings.	Completed				
Pakistan 1.1.10d	One-day training on writing conservation and natural resource management grant proposals at Chitral.	Completed				
1.2	Sub-objective 1.2: Increase community resiliency to climate change impacts.					
Pakistan 1.2.1a	Continued work on preparation of a climate vulnerability assessment and adaptation strategy for the AHM Project areas.	Started- Ongoing				
Pakistan 1.2.2a	Organized initial climate-smart watershed management plans surveys for two small river basins in AHM Project areas.	Started- Ongoing				
Pakistan 1.2.2b	WWF in cooperation with the Hoper Conservation and Development Organziation (HCDO) and the local government, supported construction of a clean water delivery and storage system in Hakalshal Village.	Completed				
Pakistan 1.2.2c	Improved irrigation system and flood protection wall for Daranchi Nullah area, Hoper Valley, GB.	Completed				
Pakistan 1.2.3a	Establish a grazing set aside for improved pasture management at Chitral district.	Completed				
Pakistan 1.2.3b	WWF provided seeds for planting alfalfa as a fodder crop on marginal lands at two sites at Hoper Valley, Gilgit-Baltistan.	Started- Ongoing				
Pakistan 1.2.3c	Planting of fast-growing native poplar, willow, and Russian olive trees on degraded lands at 7 villages in Hoper Valley, GB.	Completed				
Pakistan 1.2.4a	WWF and Radio Pakistan's Gilgit studios produced a 30-minute long radio program highlighting the importance of planting trees for climate adaptation and watershed management.	Completed				
1.3	Sub-objective 1.3: Enhance community engagement in conservation.					
Pakistan 1.3.8	Establishment of a vocational training center for women in the Hoper Valley	Started- Ongoing				
1.4	Sub-objective 1.4: Conserve the snow leopard and its habitat in priority sites.					
Pakistan 1.4.2a	Prepared concept paper for developing a provincial level snow leopard conservation action plan.	Started- Ongoing				
Pakistan 1.4.2b	Snow leopard sign and prey species survey at Hoper Valley, GB and Rumboor Valley, Chitral District, KP.	Completed				

### Asia High Mountains FY15 Annual Report — Bhutan, India, Kyrgyzstan, Mongolia, Nepal, and Pakistan

Pakistan	Provide support for village wildlife guards (VWG)	Started- Ongoing
1.4.8		
Pakistan	WWF provided disaster relief to residents of AHM Project communities that were	Completed
Additiona	badly affected by the summer 2015 flooding in Chitral District.	
1 activities		

Regional

Regio	niai	
	Activities	Status
2	Objective 2: Improve transnational collaboration on climate change adaptation and conservation in Asia's high mountain landscapes.	snow leopard
2.1	Sub-objective 2.1: Building cooperation through the Climate Summit for a Living Him "Framework of Cooperation" for protection of Asia's high mountain landscapes and s conservation.	
Regional 2.1.9	Bhutan International Glacier Symposium at Ugyen Wangchuck Institute for Conservation and Environment (UWICE), Bumthang.	Completed
2.2	Sub-objective 2.2: Facilitate discussions on climate change and snow leopard conserva countries.	tion among the range
Regional 2.2.1	Released a regional report titled "Climate Vulnerability in Asia's High Mountains."	Completed
Regional 2.2.2	Conducted half day technical meeting on climate change impacts on snow leopard range areas and water resources.	Completed
Regional 2.2.4a	Annual meeting of the Central Asia Interstate Commission on Sustainable Development (ICSD). WWF also participated as an observer organization in a second meeting of the ICSD, workshop on Climate Change Adaptation in the Mountain Regions of Central Asia, "Water and Mountains" section of the UN "Water for Life" conference, Workshop on Sustainable Wildlife Management in Central Asia: Practical Experience and Way Forward etc.	Completed
Regional 2.2.5	5-day project-wide learning and sharing meeting held at Kathmandu, Nepal.	Completed
2.3	Sub-objective 2.3: Update range-wide information on snow leopard trafficking and proinformation to enforcement efforts at the national and regional network levels.	vide trafficking
TRAFFIC 2.3.1	TRAFFIC continued compiling snow leopard trade research findings.	Started but completion delayed
TRAFFIC 2.3.2	Preliminary recommendations on the illegal trade in snow leopard products were drafted.	Started but completion delayed
TRAFFIC 2.3.3	Snow Leopard Network released the new edition of the Snow Leopard Survival Strategy (SLSS)	Completed
TRAFFIC 2.3.4	TRAFFIC continued to coordinate with INTERPOL's Project Predator on snow leopard trade issues.	Started, Ongoing.
TRAFFIC 2.3.5	TRAFFIC used its past experience in supporting SAWEN to inform snow leopard- specific dialogues such as the Central Asia wildlife trade enforcement workshop, discussed under Activity 2.3.4, above, notably with respect to developing a regional enforcement strategy for Central Asia	Started but further progress delayed
2.4	Sub-objective 2.4: Building momentum through a range-wide network for snow leopar	d conservation.
Regional 2.4.1	WWF finalized and released a regional report titled "Guardians of the Headwaters: Snow Leopards, Water Provision, and Climate Vulnerability."	Completed
Regional 2.4.4	The new SLSS was reviewed by the WWF US Climate Adaptation Team to make it "climate smart."	Completed
Regional 2.4.5	WWF continued to provide support to the Snow Leopard Network's Snow Leopard Conservation Grant Program for a second year of climate change category awards.	Started, Ongoing
2.5	Sub-objective 2.5: Launch the beginnings of the Alliance on Asia's High Mountain Lo	andscapes.
Regional 2.5.2	WWF support for the first steering committee meeting of the Global Snow Leopard and Ecosystem Protection Program (GSLEP) Secretariat.	Completed
Regional 2.5.3	Support to the GSLEP Secretariat to set up its office in Bishkek.	Completed

### **Annex 2: AHM Project Year 3 Activity Timeline**

Table A2.1. Bhutan Activity Timeline

Activity Number	Date	Location	Activity Description	Activity Indicator
1.1.3a	October 23, 2014	Zangtherpo Primary School in Chokhortoe, Bumthang	Celebration of International Snow Leopard Day among four WCP schools	500 students from WCP were educated about snow leopard ecology and threats to snow leopards
1.1.3b	November 4, 2014	Haa, Jigme Khesar Strict Nature Reserve (JKSNR)	International Snow Leopard Day Celebration	600 students, teachers, government, and community members educated about snow leopard ecology and threats to snow leopards
1.2.1A	May - June 2015	Bumthang-Nubi, Sephu, and Chokhor Geogs	Establishment of three water user associations (WUA) to protect and manage local drinking water sources	Cooperation on collective management of village water resources in established for 26 households
1.2.1b	May 18-29, 2015	1. Lungsepong Village, Chokhor Geog in WCP's Central Range.  2. Rabji Gonpa Village, Sephu Geog in WCP's Western Range	Springshed protection and water delivery activity was carried out     Springshed protection and water delivery activity was carried out	Water security improved for 23 households in 2 villages
1.2.1C	September 16- 20, 2015	Shawa Village in Gangzur Geog in eastern WCP, Bumthang	Completed selection of a village for an initial climate-smart village demonstration	Village baseline information was collected, and proposed actions agreed upon with local residents which will be conducted in AHM Project year 4
1.2.1d	1. August 27-29, 2015	1. Phobjikha Valley, Wangdue Phodrang	Watershed management planning dzongkhag-level consultation meeting	1. 37 People (4 Women) participated
	2. September 9, 2015	2. Lhuentse Town, Lhuentse	2. Watershed management planning dzongkhag-level consultation meeting	2. 15 people (0 women) participated
	3. September 1, 2015	3. Sephu Geog, Wangdue Phodrang	3. Watershed management plan geog-level consultation meeting	3. 23 people (3 women) participated
	4. September 10- 11, 2015	4. Gangzur Geog, Lhuentse	4. Watershed management planning geog-level consultation meeting	4. 34 people (4 women) participated

	5. September 15, 2015	5. Tangsibji Geog, Trongsa	5. Watershed management plan geog-level consultation meeting participation	5. 24 people (11 women) participated
	6. September 17-18, 2015	6. Kurtoe Geog, Lhuentse	6. Watershed management planning geog-level consultation meeting	6. 35 people (5 women) participated
	7. September 12, 2015	7. Ngar and Jang Villages, Gangzur Geog, Lhuentse	7. Watershed management planning Chiwog-level consultation meeting	7. 20 people(16 women) participated
	8. September 14, 2015	8. Nye Pema Chen Village, Gangzur Geog, Lhuentse	8. Watershed management planning Chiwog-level consultation meeting	8. 60 people (44 women) participated
	9. September 16, 2015	9. Zhamling & Thrima village, Gangzur Geog, Lhuentse Dzongkhag	9. Watershed management planning Chiwog-level consultation meeting participation	9. 13 people(12 women) participated
1.2.2A	June 15-18, 2015	UWICE in Lamai Goempa Village, Bumthang	WCP worked in cooperation with UWICE and WWF Bhutan to conduct a climate change adaptation training for officials from various organizations	38 People (5 Women) trained
1.2.2b	May 19-29, 2015	Upper Chamkhar Chu watershed of Chokhor Geog (county), WCP	UWICE conducted a water scarcity survey	107 People (45 women) participated
1.2.2c	September 2015	Nikka Chu River basin, western WCP, Bumthang	A rapid watershed assessment for the Nikka Chu River	Awareness of the watershed management planning process is raised amongst relevant stakeholders and communities
1.2.3	June 2015	Gomthang Village, Chokhor Geog in WCP's Central Range	WCP staff oversaw renovation of a bridge along an important travel route	15 herding households directly benefited
1.2.4	1. May 10-12, 2015	1. Thangbi Village, Chokhor Geog, WCP	3-day climate change adaptation capacity development trainings for local farmers	1. 111 People (75 Women) trained
	2. May 15-17, 2015	2. Dhur Village, Chokhor Geog,WCP	3-day climate change adaptation capacity development training	2. 73 People (43 Women) trained
1.2.5	September 14- 16, 2015	UWICE in Lamai Goempa Village, Bumthang	UWICE conducted three-day hydro-meteorological monitoring and data management training	25 people (5 Women) trained
1.3.1	1. May 16-17, 2015	1. Sephu Geog, Wangdue Phodrang	WCP conducted snow leopard awareness raising program.	1. 59 farmers and yak herders (30 Women)

				participated
	2. June 3-5, 2015	2. Sephu Geog, Wangdue Phodrang	2. WCP established a new snow leopard conservation committee (SLCC)	2. A new SLCC is established by 30 residents (5 Women)
1.3.4A	May-June 2015	WCP, Bumthang	Construction of bear-proof food storage facilities	Total of 32 yak herders (~16 Women) from 8 families benefited
1.3.4b	August 2015	Thangyul Village in Nubi Geog, Trongsa	WCP provided support for an electric fence to prevent crop damage by wild animals	130 Farmers (60 Women) from 26 households benefited
1.4.1	2012-2014	September 2015	WCP prepared a draft technical report on the findings of the snow leopard survey titled "Population Status and Distribution of Snow Leopard (Panthera uncia) in Wangchuck Centennial National Park, Bhutan"	The report is currently undergoing review by government partners in Bhutan and is expected to be released in the winter of 2016

Table A2.2. India Activity Timeline

Activity	Date	Location	<b>Activity Description</b>	Activity Indicators
Number			1201.10 Description	-101.10j maicutois
1.1.10	July 18, 2015	Lachen Village, North Sikkim	Preparation and distribution of an educational brochure on sustainable caterpillar fungus harvesting at a community meeting	250 community members (~20 women) participate
1.2.1	1. April 12-17, 2015	1. Lachen and Lachung Villages	Climate change     vulnerability assessment     community consultation	1. Lachen: 17 Participants (5 Women); Lachung: 13 Participants (3 Women)
	2. April 20, 2015	2. Gangtok	2. Focus group discussion with community leaders and NGO representatives to gain a better understanding of the key areas affected by climate change	2. 10 people (0 women) participated
1.3.1A	September 7-9, 2015	Lachen Village, North Sikkim	WWF-Lachen Tourism Development Committee organized 3-day environment training for teachers	20 teachers (7 Women) from 14 schools in North Sikkim trained
1.3.1B	July 20, 2015	Lachen Village, North Sikkim	Citizen scientist training for three community members	3 community members (All Men) trained
1.3.2	April 16–17, 2015 and July 18–26, 2015	North Sikkim	Human Wildlife Conflict interviews	18 herders (6 Women) interviewed
1.3.10	September 11, 2015	Lachung Village, North Sikkim	Bio-briquette training	9 People (2 Women) participated
1.3.11A	December 18, 2014	Yuksam, West Sikkim.	Consultation meeting on strengthening sustainable tourism activities in Khangchendzonga National Park (KNP)	61 People (5 Women) participated
1.3.11B	December 22-23, 2014	Lachen Village, North Sikkim	WWF and the Khangchendzonga Conservation Committee (KCC) conducted a training on making handicrafts from waste and discarded material	32 people (all Women) trained
1.3.11C	January 7, 2015	Lachen Village, North Sikkim	Meeting among Lachen pipons (village leaders) and community members to impose a village trash collection fees	25 people (3 Women) particpated
1.3.11D	1. March 3, 2015 2. April 24, 2015	Gangtok     Gangtok	WWF-ECOSS consultation meetings to begin drafting a tourism policy for Sikkim at the request of the Sikkim Tourism Department	1. 15 people (5 Women) participated 2. 25 people (5
	-	_		Women) participated
1.3.11E	1. December 8- 11, 2014	1. KCC headquarters in Yuksam Village, West Sikkim	1. Homestay OwnersTraining	1. 18 people (7 Women) trained

		I	T	I
	2. March 7, 2015	2. Kitam village, South Sikkim	2. Ecotourism meeting with local elected representatives and potential homestay owners	2. 22 people (10 Women) participated
	3. March 13, 2015	3. Kitam village, South Sikkim.	3. Ecotourism orientation meeting for homestay operators	3. 24 people (11 Women) participated
1.3.11F	1. October 20, 2014	1. Jorethang, South Sikkim	Zero Waste Himalaya Day     Trash management exhibition	Hundreds of people had their awareness raised regarding
	2. October 27– 30, 2014	2. Gangtok, East Sikkim	2. Zero Waste Himalaya Day Trash management exhibition	waste management issues and solutions
	3. November 14- 15, 2014	3. Mangan, North Sikkim	3. Zero Waste Himalaya Day Trash management exhibition	
	4. January 14-16, 2015	4. Jorethang, South Sikkim	4. local zero waste festival	
	5. July 3, 2015	5. Gangtok	5. ZWH volunteers to hold the "Plastic Bag Free Day"	
	6. August 8, 2015	6. Gangtok	6. Zero Waste Himalaya Day	
	7. August 15, 2015	7. Lachen village, North Sikkim	7. Zero Waste Himalaya Day	
1.4.1	July 20, 2015	North Sikkim	Snow leopard camera trap survey launhced	Initial survey results have produced the first camera trap photos of snow leopards ever taken in Sikkim
1.4.6	June 2-9, 2015	Khangchendzonga National Park (KNP) and its buffer zone, West and North Sikkim	Wildlife monitoring survey and anti-poaching patrols.	Capacity of 5 local volunteer rangers (himal Rakshaks) strengthened; 10 wildlife traps and snares dismantled
1.4.13	September 10- 11, 2015	North Sikkim	Training on biodiversity field survey techniques for field staff of the North Sikkim district Forest, Environment and Wildlife Management Department (FEWMD)	24 people (4 Women) trained

Table A2.3. Kyrgyzstan Activity Timeline

Activity	Date	Location	Activity Description	Activity
Number Activity 1.1.3A	1. October 20, 2014	1. Engilchek Village (Sarychat- Ertash Reserve buffer zone)	International Snow Leopard     Day celebration.	Indicators 1. 42 people (21 Women) participated
	2. October 23, 2014	2. Akshyrak Village (Sarychat- Ertash Reserve buffer zone)	2. International Snow Leopard Day celebration	2. 97 people (42 Women) particpated
1.1.3B	December 11, 2014	E.Kendyrbajev Secondary School in Barskoon Village, Issyk Kul Province, location of the Sarychat- Ertash State Reserve Headquarters.	International Mountain Day celebration	29 people (16 Women) participated
1.1.3C	February 9, 2015	Bishkek Secondary School No. 5	Children's snow leopard assembly and essay and drawing competitions	33 people (16 Women) participated
1.1.3D	April 22, 2015	Karakolka Village (Sarychat-Ertash Reserve buffer zone)	Earth Day Celebration	30 People (12 Women) participated
1.1.3E	May 22, 2015	Akshyrak Village	Land of the Snow Leopard Festival	167 peeople (85 Women) participated
1.1.3F	July 18-28, 2015	Chong Jargalchak Village on the south shore of Lake Issyk Kul	Cooperation with Kumtor Gold Mine and theSarychat- Ertash Reserve to hold a Children's Summer Eco-Camp	29 People (11 Women) participated
1.1.6	July 2015	Issyk-Kul Province	WWF - Kumtor cooperation on conservation and natural resource management activities	Apart from Activity 1.1.3F, above, cooperation delayed indefinitely
1.2.1	Winter –Spring 2015	Kyrgyzstan's Central Tian Shan region	Climate change vulnerability assessment.	Climate change vulnerability assessment reports completed
1.2.2	1. July 4, 2015	1. Chon Kyzyl Suu Village	Consultation meetings with local communities on developing a watershed management plan	1. 7 people (3 Women) participated
	2. July 8, 2015	2. Lipenka Village	2. Consultation meetings with local communities on developing a watershed management plan	2. 20 People (9 Women) participated
	3. July 21-23, 2015	3. Chon Kyzyl Suu Village.	3. Consultation meetings with local communities on	3. 16 People (5 Women)

			developing a watershed	participated
			management plan	parucipateu
	4. August 10, 2015	4. Muz Bulak Village	4. Consultation meetings with the village council and water users associations of Muz Bulak Village	4. Irrigation problems discussed
	5. August 20-22, 2015	5. Chong Kyzyl Suu Village	5. Consultation meetings with the village council and water users associations	5. 15 members (5 Women) participated
	6. September 2-4 2015	6. Lipenka Village	6. Consultation meetings with the village council and water users associations	6. 15 People (9 Women) participated
	7. September 14- 16, 2015	7. Svetlopolyan- sky Village	7. Consultation meetings with the village council and water users associations	7. 21 People (8 Women) participated
1.2.3	1. March 24, 2015	1. Lipeskoy Village	1. WWF signed a 200 hectare pasture lease for the pasture rotation demonstration	1. Cooperation on sustainable pasture mangagement continued at Sarychat-Ertash
	2. August 1, 2015	2. Karakolka Village	2. Day of the Shepherd festival	2. 280 herders (120 Women) participated
	3. August 25, 2015	3. Sarychat-Ertash Reserve	3. Livestock vaccination campaign for the demonstration yak herd	3. 66 yaks were vaccinated against pasteurellosis and emphysematous carbuncle
1.3.9A	1. October 9-10, 2014	1. Akshyrak Village	1. Launch of the local development fund	1. 22 People (12 Women) participated
	2. October 20, 2015	2. Engilchek Village.	2. Launch of the local development funds	2. 29 people (14 Women) participated
	3. May 23, 2015	3. Akshyrak Village	3. Preliminary monitoring of LDF activities	3 & 4. Preliminary monitoring covered all 8 participating
	4. June 24, 2015	4. Engilchek Village	4. Preliminary monitoring of LDF activities	jaamats from these two villages
1.3.9B	August 3-9, 2015	Akshyrak Village, Karakolka Village, Cholpon Ata Village	Support for women from Akshyrak and Karakolka Villages on production and marketing of felt handicrafts including participation at a summer handicradts fair in Cholpon Ata.	2 women from Ak Shyrak and Karakolka Villages sold crafts from these villages in Cholpon Ata to earn a total of USD 720
1.4.4	December 12-20, 2014	Sarychat-Ertash State Reserve	Support for monitoring of snow leopards and their prey species	300 potential snow leopard scat samples were collected for DNA analysis with

				results expected in the spring of 2016
1.4.9	October 11 & 23, 2014	Sarychat-Ertash Gulotock ranger station	Installation of second wind- generator with a capacity of 1.5 KW, ranger uniform and equipment donation	20 rangers (All Men) at the Sarychat-Ertash Reserve benefit from these donations
1.4.10	December 2014	Kyrgyzstan	WWF in and the Hunting Department of the State Agency on Environment Protection and Forestry design and distribute a 2015 wall calendar poster that features photos of local wildlife and highlights increased fines for illegal hunting	Awareness of national wildlife protection laws and penalties greatly increased

Table A2.4. Mongolia Activity Timeline

	Mongolia Activi		T	T
Activity Number	Date	Location	Activity Description	Activity Indicators
1.1.3A	October 23, 2014	Khovd Aimag	International Snow Leopard Day events	60 students (~30 Women) participated in student event
1.3.1B	June 27-July 3, 2015	Uvs Aimag	Annual summer camp for school eco-club members	103 Children (51 Girls) and 13 Teachers (8 Women) from 10 soums (counties) of Khovd and Gobi- Altai Aimags participated
1.1.4	2015	Khovd Aimag: Darvi, Zereg, Mankhan, Must and Tsetseg Soums	Financial and technical support for compiling pasture databases for five soums	Pasture data bases compiled for 5 soums in Khovd Aimage that lie in AHM Project areas
1.2.1A	December 2014 and February 2015	Snow leopard Khovd, Gobi- Altai, Zavkhan, Bayan-Ulgii, and Uvs Aimags	Climate change knowledge, attitude, and practice (KAP) social survey	1564 people (608 women) participated
1.2.1B	2015	Altai Sayan Ecoregion, western Mongolia	WWF cooperated with the Institute of Biology to complete a preliminary climate vulnerability assessment for western Mongolia	1 vulnerability assessment produced
1.3.1	June-August 2015	Jargalant Khairkhan, Khovd Aimag	Campaign launched to halt illegal wildlife trapping at Jargalant Khairkhan Mountain	40 local families voluntarily hand over 240 wildlife traps and promise to improve protection of snow leopards and other wildlife in exchange for ordinary household utensils used by local herders
1.3.4	November 19, 2014	Ulaanbaatar	Learning and sharing meeting on human-snow leopard conflict for government agencys and NGOs	8 People (4 Women) participated
1.3.5	2014-2015	AHM Project area, western Mongolia.	Support provided to three communities to diversify their livelihoods as one climate adaptation strategy for rural livestock herders, including via ecotourism and sale of handicrafts and meat products	21 families from three project communities in Khovd Aimag diversify their income sources
1.4.1	July 2014 to April 2015	Bumbat and Baatar Khairkhan Mountains, Khovd Aimag	Snow leopard monitoring cameras trap surveys	2snow leopard camera trap surveys completed
1.4.5	October 25-10 November, 2014	Tsagaan Shuvuut Strictly Protected	WWF cooperated with the Mongolian Irbis Center, the	One snow leopard collared with a

		Area (SPA) in	Uvs Lake Basin Strictly	satellite GPS
		Uvs Aimag	Protected Area	tracking collar
		Mongolia.	Administration, the	providing 4 months
			Mongolian Academy of	of extremely
			Sciences' Institute of Biology,	valuable location
			and the Russian Academy of	data
			Sciences to place a satellite	
			GPS tracking collar on one	
			female snow leopard	
1.4.6	1. March 2015	1. Sair Mountain	1. Trained a volunteer ranger	1. 1 volunteer
		Local Protected	(male) to monitor wildlife and	ranger trained and
		Area in Bayan	equipped him with a spotting	equipped
		Olgii Aimag	scope and tripod	
	2. January-July	2. Zereg,	2. Citizen scientist trainings	2. 17 local herders
	2015	Chandmani, and	on monitoring snow leopards	and volunteers (1
		Mankhan Soums	and their prey species	women) trained
		in Khovd Aimag		
		and Dariv Soum		
		of Gobi-Altai		
		Province		
1.4.11	September 18,	Darvi Soum,	Establishment of the 105,200	1 large pasture
	2014	Khovd Aimag	ha Bayan Nuruu Pasture	reserve established
			Reserve	for use during
				fodder emergencies

Table A2.5. Nepal Activity Timeline

	Nepal Activity		1 1 1 1 E	1 4 4 1
Activity	Date	Location	Activity Description	Activity
Number 1.1.1	Ocotber 2014	Kangchenjunga Conservation Area: Papung, Olangchung Gola, Yamphudin, Tapethok, Lelep, and Kalikhola VDCs	Monitoring of CARE KCA field activities	Indicators  CARE conducted self-monitoring of CARE-led activities in the KCA to assess their quality
1.1.3	October 2014	KCAMC headquarters, KCAMC sector offices, and Papung and Kalikhola VDC town centers	CARE put up a total of 11 sign boards in the Kangchenjunga Conservation Area (KCA) with information on KCA regulations	Awareness raised amongst KCA residents
1.1.9	October 2014	Kangchenjunga Conservation Area, Tapethok VDC	CARE organized trainings on leadership skills and social inclusion	45 people (29 Women) trained
1.2.2	1. June 2015	1. Tapethok VDC: Ward No. 7, 8, 9	1. Small scale adaptive irrigation including sprinklers, pipes, and canals	1. 911 person(496 women) benefit
	2. June 2015	2. Lelep VDC: Ward No. 2	2. Small scale adaptive irrigation including sprinklers, pipes, and canals	2. 557 person (283 women) benefit
	3. June 2015	3. Tapethok VDC: Ward No. 2	3. Small scale adaptive irrigation inlcuding sprinklers, pipes, canals, and a small water storage pond.	3. 169 person (87 women) benefit
	4. June 2015	4. Lelep and Tapethok Villages	4. Greenhouses for adaptive agriculture	4. 500 person (256 women) benefit
1.2.3			Pasture Rotation Improvement Acitivites	
	1. June 2015	1. Lelep VDC: Luwadada Village	1. Water Supply	1. 223 person (114 women) benefit
	2. June 2015	2. Olangchung Gola VDC: Hile Village	2. Trail improvement	2. 337 person (163 women) benefit
	3. June 2015	3. Yamphudin: Ghatte Khola Village	3. Trail improvement	3.180 person (85 women) benefit
	4. June 2015	4. Lelep VDC: Chhange Khola Village	4. Trail improvement	4. 129 person(64 women) benefit
	5. June 2015	5. Tapethok VDC: Harkatte Village	5. Trail improvement	5. 25 person (14 women) benefit

	6. June 2015	6. Tapethok VDC: Tamwa Khola Village	6. Bridge improvements	6. 1683 person (837 women) benefit
1.3.1	August 29, 2015	KCA district offices- Yamphudin, Tapethok, Ghunsa and Olangchung Gola	Donations of computers, printers and photocopy machines to four KCA district offices in Yamphudin, Tapethok, Ghunsa and Olangchung Gola	Capacity of four KCAMC district offices to produce reports, manage data, and disseminate information is increased
1.3.7	February 2015	Yamphudin Village, KCA	Completion of a community- manged essential oil processing plant	275 people (140 Women) from 50 households benefit
1.3.11	June 2015	Tapethok to Lelep trekking route, KCA	Repair of 3.5 km of the main Tapethok to Lelep trekking route which was damaged by landslides and rockfalls during the April 25, 2015 earthquake	400 local residents (200 women) benifit
1.4.5	November 2013	Kangchenjunga Conservation Area (KCA)	Satellite GPS tracking of two collared snow leopards	Invaluable information on migration and habitat use of snow leopards in the KCA gathered
1.4.6	November 24, 2014	Yangma Village, KCA.	Citizen scientist trained on how to monitor and snare snow leopards for research purposes	22 people (2 Women) trained.
1.4.13	1. January 23-24, 2015 2. April 25-26, 2015	KCA office in Lelep     KCA office in Lelep	Two meetings of KCAMC held to discuss project progress and management in the KCA	14 People (5 Women) particpated

Table A2.6. Pakistan Activity Timeline

	Pakistan Activity	<del>(</del>	T	
Activity Number	Date	Location	Activity Description	Activity Indicators
1.1.5A	March 24, 2015	Booni Village, Chitral District.	Organized a snow leopard and climate change impact guest lecture and quiz competition for school nature clubs members	50 People (25 Women) participated
1.1.5B	May 5, 2015	Hoper Valley, GB	Climate change seminar for students	700 People (400 women) participated
1.1.5C	1. March 3, 2015	1. Gilgit, GB	1. World Wildlife Day	1. 300 people (100 women) participated
	2. March 8, 2015	2. Karakoram International University (KIU) Gilgit, GB	2. International Women's Day	2. 800 people (700 women) participated
	3. May 22, 2015	3. Hoper Valley, GB	3. International Day for Biological Diversity	3. 200 people (150 women) participated
	4. June 5, 2015	4. Karakoram International University (KIU) Gilgit, GB	4. World Environment Day	4. 1000 people (600 women) participated
	5. August, 19-21, 2015	5. Hoper Valley, GB	5. Cultural Revival Festival	5. 3000 people (500 women) participated
1.1.10A	October 4, 2014	Laspur	Developed a conservation and development plan for the Laspur Valley, Chitral, KP	20 participants (6 Women) participated
1.1.10B	December 20, 2014	Hoper Valley, GB	WWF provided partial support (USD 1000) for establishment of a formal HCDO office	Construction of small office for the HCDO started
1.1.10C	1. October 12, 2014	1. Hoper Valley, GB	1. Hoper Conservation and Development Organization (HCDO) progress review meeting	1. 30 People (All Men) participated
	2. March 8, 2015	2. Hoper Valley, GB	2. Hoper Conservation and Development Organization (HCDO) progress review meeting	2. 35 People (All Men) participated
	3. June 4, 2015	3. Hoper Valley, GB	3. Hoper Conservation and Development Organization (HCDO) progress review meeting	3. 20 People (All Men) participated
1.1.10D	September 8, 2015	Chitral Town	One-day training on writing conservation and natural resource management grant proposals	22 People (13 Women) participated
1.2.1A	February 2015	Chitral and Gilgit- Baltistan.	Draft climate vulnerability assessment and adaptation strategy for AHM Project areas I Pakistan prepared	1 draft climate change vulnerability assessment report

				produced
1.2.2A	February, 2015  August 2015	Chitral and Gilgit-Baltistan.  Hoper Valley,	Organized initial watershed management surveys for two small river basins in AHM Project areas  WWF supported construction of	1 Watershed management planning preliminarty survey report produced 1600 People (800
1,2,20	August 2013	Gilgit-Baltistan.	a clean water delivery and storage system in Hakalshal Village	Women) from 200 households benefit
1.2.2C	August 2015	Daranchi Nullah area, Hoper Valley, GB	Irrigatation system improved and flood protection wall constructed to improve water and livelihood security.	800 People (400 women) from 100 households benefit
1.2.3A	June 4, 2015	1. Sor Village Laspur Valley, Chitral District	Pasture grazing set aside established as one climate adaptation strategy to improve pasture management and grassland ecosystem resilience to climate change impacts	1 grazing set aside established with future benefits for herders, livestock, and wildlife
1.2.3B	May 2015	Hoper Valley, Gilgit-Baltistan	7.6 ha of marginal land planted with alfalfa as a fodder crop to reduce grazing pressure on alpine pastures	600 People (~300 Women) from 75 families benifit
1.2.3C	May 2015	7 villages in Hoper Valley, GB	Fast-growing native poplar, willow, and Russian olive trees planted on degraded lands to improve watershed management and increase local ecosystem resilience to climate change impacts	10,000 fast growing multipurpose trees were planted on 5 ha of degraded lands
1.2.4A	Febuary12, 2015.	Gilgit-Baltistan	WWF and Radio Pakistan's Gilgit studios produced a 30- minute long radio program highlighting the importance of planting trees for climate adaptation and watershed management	Public awareness- raising program reaches thousands of listeners
1.3.8	June 15, 2015	Hoper Valley, GB	Vocational training center for women established with a focus on producing wool handicrafts as one climate adaptation strategy for diversifying local incomes	40 People (All Women) trained to produce and market wool handicrafts
1.4.2A	October 2014	Chitral Town, KP	WWF prepared concept paper for developing a provincial level snow leopard conservation action plan	Process for developing a snow leopard conservation action plan for KP initiated
1.4.2B	1. December 8- 14, 2014 2. June 12-16,	1. Hoper Valley, GB 2. Rumboor	Snow leopard sign and prey species survey conducted     Snow leopard sign and prey	3 snow leopard sign and prey species surveys conducted and the
	2015	Valley, Chitral	species survey conducted	report on these

		District, KP		surveys is currently being
	3. July 12-18,	3. Hoper Valley,	3. Snow leopard sign and prey	compiled
	2015.	GB	species survey conducted	
1.4.8	2014-2015	Laspur and	Support provided for village	VWGs at 3 AHM
		Rumboor Valleys,	wildlife guards (VWG) to	Project sites
		Chitral and Hoper	conduct anti-poaching patrols	supported
		Valley, GB	and snow leopard and prey	
			species monitoring	
Additional	August 10-18,	Laspur and	WWF provided disaster relief to	Disaster relief
activities	2015	Rumboor Valleys	residents of AHM Project	assistance
			communities that were badly	provided to more
			affected by the summer 2015	than 200 needy
			flooding in Chitral District	families

Table A2.7. Regional Activity Timeline

	Regional Activity	1	T	
Activity Number	Date	Location	<b>Activity Description</b>	Activity Indicators
2.1.9	April 16-18, 2015	Ugyen Wangchuck Institute for Conservation and Environment (UWICE), Bumthang	Bhutan International Glacier Symposium	47 people (6 women) participated
2.2.1	January 2015	WWF US	Techincal report titled "Climate Vulnerability in Asia's High Mountains" finalized and officially released	1 Technical report released
2.2.2	January 28, 2015	Kathmandu, Nepal	Conducted half day technical meeting on climate change impacts on snow leopard range areas and water resources	63 People (16 Women) participated.
2.2.4A	1. November 25- 28, 2014	1. Dushanbe	1. WWF participation in the annual meeting of the Central Asia Interstate Commission on Sustainable Development (ICSD)	1. 45 People (9 Women) participated
	2. June 16-18, 2015	2. Ashgabat	2. WWF participation as an observer organization in a second meeting of the ICSD	2. 38 People (8 Women) participated
	3. September 2- 3, 2015	3. Almaty, Kazakhstan.	3. WWF participation in the ICSD-UNEP workshop on Climate Change Adaptation in the Mountain Regions of Central Asia	3. 35 People (9 Women) participated
	4. June 8-11, 2015	4. Dushanbe	4. WWF participated in the "Water and Mountains" section of the UN "Water for Life" conference	4. WWF presentation on AHM successes given
	5. August 31- September 3, 2015	5. Ashgabat	5. WWF participated in the GIZ International Workshop on Sustainable Wildlife Management in Central Asia: Practical Experience and Way Forward	5. 33 People (11 Women) participated
2.2.5	January 26-30, 2015	Kathmandu, Nepal	AHM 5-day project-wide learning and sharing meeting	63 people (16 Women) participated
2.3.1	September 2014	TRAFFIC	TRAFFIC continued compiling snow leopard trade research findings.	Draft snow leopard trade report completed and reviewed in September 2015 which will be further refined and completed by Sumer 2016
2.3.2	AHM Project Year 3	TRAFFIC-India, New Delhi	Preliminary recommendations on the illegal trade in snow	Draft recommendations

			leopard products were drafted	will be released in
			reopard products were drafted	the summer of
				2016 as part of the
				report in Activity
				2.3.1, above
2.3.3	October 23, 2014	SLN	Snow Leopard Network	Revised Snow
			released the new edition of the	Leopard Survival
			Snow Leopard Survival Strategy (SLSS) with	Strategy finalized and released
			contributions from TRAFFIC	and released
			on wildlife trade and from	
			WWF on climate change and	
			climate smart concepts	
2.3.4	2014-2015	TRAFFIC	TRAFFIC continued to	TRAFFIC
			coordinate with INTERPOL's	continued coordination with
			Project Predator on snow leopard trade issues,	INTERPOL on
			particularly with respect to	snow leopard trade
			holding a regional seminar on	issues
			combating illegal wildlife trade	
			in Central Asia in September	
225	2014-2015	TRAFFIC	2015	TRAFFIC
2.3.5	2014-2015	IKAFFIC	TRAFFIC used its past experience in supporting	continues to use
			SAWEN to inform snow	lessons learned
			leopard-specific dialogues such	from earlier
			as the Central Asia wildlife	cooperation with
			trade enforcement workshop,	SAWEN to inform
			discussed under Activity 2.3.4,	design of activities
			above, notably with respect to developing a regional	for halting the trade in snow
			enforcement strategy for	leopard products
			Central Asia	
2.4.1	January 2015	WF-US	WWF finalized and released a	1 technical report
			regional report titled	on water provision
			"Guardians of the Headwaters:	and climate
			Snow Leopards, Water Provision, and Climate	change in snow leopard range
			Vulnerability" and launched a	areas and the
			companion website titled the	report's
			"Third Pole Geolab" to present	companion
			the findings and spatial data	website are
2.4.4	0.4.1. 22.2014	CLN	from this report	launched
2.4.4	October 23, 2014	SLN	The revised Snow Leopard Survival Strategy is released	Revised Snow Leopard Survival
			with contributions from the	Strategy finalized
			WWF US Climate Adaptation	and released.
			Team on climate change and	
			climate smartness	
2.4.5	December 2014,	SLN/SLT	WWF continued to provide	One small grant
	ongoing.		support to the Snow Leopard	program proposal
			Network's Snow Leopard Conservation Grant Program for	on links between climate change
			a second year of climate change	and variation in
			category awards.	snow leopard
				predation patterns
				was selected for
				AHM-supported
2.5.2	Manch 10 20	Vai Taal	The Cost of the size of the si	funding
2.5.2	March 19-20,	Koi Tash,	The first steering committee	75 people (20

	2015	Kyrgyzstan	meeting of the Global Snow	Women)
			Leopard and Ecosystem	participated;
			Protection Program (GSLEP)	permanent GSLEP
			Secretariat is held, formally	Secretariat
			establishing the permanent	formally launched
			GSLEP Secretariat.	
2.5.3	Spring of 2015	Bishkek	WWF provides support to the	The GSLEP
			GSLEP Secretariat establish	Secretariat office
			and to set up its permanent	in Bishkek is
			office in Bishkek	formally opened
				and equipped with
				computers and
				accessories funded
				by the AHM
				Project

**Annex 3:** Bhutan Activity 1.2.1D: Agendas for the dzongkhag (provincial) level Nikka Chu and Kuri Chu River Basin stakeholder workshops held August-September 2015

# Agenda for the WMD stakeholders consultation workshop on Nikka Chu Rapid Watershed Assessment and Climate Change Vulnerability Assessment (CCVA) at Phobjikha, Wangdue Phodrang Dzongkhag (August 27-29, 2015)

Date	Time	Agenda	Remarks
Day 1	08.30-09.00	Registration of participants	Chimi & Karma, WMD
27.08.2015	09.00-09.15	Welcome address	Nidup Tshering,WMD
	09.15-09.45	Overview of Watershed Management Division and its	Tsering Gyeltshen,
		role in DoFPS	WMD
	09.45-10.15	Presentation on Integrated Watershed Management at	Tsering Gyeltshen,
		Nikachhu (WWF support)	WMD
	10.15-11.00	Discussion	
	11.00- 11.15	Tea break	
	11.15- 12.15	Presentation on Rapid Watershed Assessment	Tsering Gyeltshen &
		Guideline	Nidup Tshering, WMD
	12.15-13.00	Discussion	
	13.00-14.00	Lunch break	
	14.00-14.30	Presentation on water accounting	Dorji Gyaltshen, WMD
	14.30-15.00	Presentation on Climate Change Scenario in Bhutan	Kuenzang Choden,
			CoRRB
	15.00- 15.15	Tea break	
	15.15 -16.35	Presentation of CCVA questionnaire	Tsering Gyeltshen,
			Chenten Thinley,
			Kuenzang Choden
	16.35 -17.35	Discussion and feedback on CCVA questionnaire	WMD and all
			participants
	17.35-18.00	Wrap-up and discuss next day practical program	WMD
Day 2	07.30-18.30	Field demonstration on rapid watershed assessment	WMD and RNR RDC
28.08.2015		using Watershed Classification Guideline and	team
		measurement of water discharge using floating	
		methods in 2 groups	
Day 3	09.00-10.00	Presentation by groups on watershed classification	Participants
29.08.2015		and water discharge measurement	
	10.00 -10.30	Presentation on status of Nikachhu hydro plant	Thinley, DGPC rep.
	10.30- 10.45	Tea break	
	10.45-11.45	Group work on identifying significant tributaries of	Sephu and Tangsibji
	11 12 12 12	Nikachhu and its uses	group
	11.45- 12.45	Presentation by groups & discussions	WMD & participants
	12.45-13.45	Lunch break	
	13.45-16.45	Training on the use of CCVA questionnaire to	WMD
		participants	
	16.45-17.45	Discussion on terminology to used and clarify doubts	WMD & participants
	17.45 18.45	Group work on: (1) planning field program for rapid	
		watershed assessment and CCVA stakeholders	
		consultation meeting at Geog and Chiwog level in	
		Sephu and Tangsibji goegs (2) formation of team for	
		above activities (3) identify team leader in chiwogs	

*Note:* On the CCVA questionnaire, the field staff of WCNP, JSWNP, RNR extension, Territorial division were trained (interviewer) till they are fully confident with questionnaire. In most case, it was discussed and clarified doubts before and after dinner. For the new RNR extension staff who did not attend dzongkhag level were trained on CCVA questionnaire in the respective RNR Centers and during field tour in villages.

### Agenda for the WMD Dzongkhag level stakeholder's consultation workshop on Kuri Chu Integrated Watershed Management and Climate Change Vulnerability Assessment (CCVA) at Dzongkhag Conference hall, Lhuentse Town, September 9, 2015

Date	Time	Agenda	Remarks
	08.30-09.00	Registration of participants	Karma Dema,WMD
	09.00-09.15	Welcome address	Tsering Gyeltshen,WMD
	09.15-09.45	Overview of Watershed Management Division	Tsering Gyeltshen, WMD
		and its role in DoFPS	
	09.45-10.15	Presentation on Integrated Watershed	Tsering Gyeltshen, WMD
		Management at Kurichhu (WWF support) in	
		WCNP area	
Day	10.15-10.30	Tea break	
Program	10.30-11.00	Presentation on Climate Change Scenario in	Karma, RDC
(00.00.00.00.00.00.00.00.00.00.00.00.00.		Bhutan	
(09.09.2015)	11.00- 11.30	Presentation of the results of Kurichhu Rapid	Tsering Gyeltshen, WMD
		Watershed Assessment and classification in	
		Gangzur and Kurtoed geogs for detail assessments	
	11.30-12.00	Discussion	Facilitated by Cheten,
			DRC
	12.00-13.30	Presentation of CCVA questionnaire	
	13.30-14.30	Lunch break	Tsering Gyeltshen, WMD
			& Karma, RDC
	14.30-15.00	Discussion and feedback on CCVA questionnaire	Facilitated by Karma &
			Cheten, RDC
	15.00-17.00	Training on the use of CCVA questionnaire to	Tsering Gyeltshen, Cheten
		participants (tea served during in the meeting hall)	and Karma
	17.00-17.30	Discuss & planning for field visit to geogs for	WMD with Dz. Sector
		CCVA interview and formation of groups	heads & Park Ranger
	17.30-17.40	Vote of thanks	Dz.FO
	17.40-18.00	Disbursement of TA/DA	Karma Dema, WMD

Note: One hour discussion and clarification of doubts on CCVA questionnaire with the WCNP, RNR extension of Gangzur & Kurtoed, Territorial division staff at hotel after the dinner.

**Annex 4:** Bhutan Activity 1.2.1D: Agendas for the geog (county) level Nikka Chu and Kuri Chu River Basin stakeholder workshops held in September 2015

# Agenda for WMD geog level stakeholders consultation workshop on Nikka Chu Rapid Watershed Assessment and Climate Change Vulnerability Assessment (CCVA) at WCNP office, Sephu Geog - September 1, 2015

Date	Time	Agenda	Remarks
Day	08.30-09.00	Registration of participants	Chimi & Karma, WMD
program	09.00-09.15	Welcome address	Nidup Tshering,WMD
(01.09.2015)	09.15-09.45	Overview of Watershed Management Division and	Tsering Gyeltshen,
		its role in DoFPS	WMD
	09.45-10.15	Overview of Integrated Watershed Management at Nikachhu (WWF support)	Tsering Gyeltshen, WMD
	10.15-10.30	Tea break	
	10.30-11.00	Presentation on Climate Change Scenario in Bhutan	Cheten Thinley & Karma, RNR RDC
	11.00-11.30	Presentation of major Nikachhu tributaries identified during Dzongkhag level consultation meeting and correction of stream names and	WMD team
	11.30-13.00	Chiwogwise group work on resource mapping, hazard mapping, seasonal calendar, vulnerability matrix ranking.	Facilitated by WCNP and extension staff
	13.00-14.00	Lunch break	
	14.00-15.00	Continued: Chiwogwise group work on resource mapping, hazard mapping, seasonal calendar, vulnerability matrix ranking.	Facilitated by WCNP and extension staff
	15.00-16.30	Chiwogwise presentation followed by discussion	Chiwog representatives
	16.30-16.45	Tea break	
	16.45-17.15	Discuss & planning for field visit to chiwogs for watershed assessment & CCVA interview	WMD with Chiwog Tshokpas
	17.15-18.00	Disbursement of TA/DA to participants	Karma & Chimi, WMD

### Agenda for geog level stakeholders consultation workshop on Kurichhu IWM and Climate Change Vulnerability Assessment (CCVA) at geog office, Gangzur (10-11 September 2015)

Date	Time	Agenda	Remarks
	08.30-09.00	Registration of participants	Karma Dema, WMD
Day 1 10/09/2015	09.00-09.15	Welcome address	Tsering Gyeltshen,WMD
	09.15-09.45	Overview of Watershed Management Division and its role in DoFPS	Tsering Gyeltshen WMD
	09.45-10.00	Vote of thanks	Geog chairman
	10.00-10.15	Tea break	
	10.15-11.00	Overview of Integrated Watershed Management at Kurichhu (WWF support)	Dorji Gyeltshen, WMD
	11.00- 13.00	Presentation on Climate Change Scenario in Bhutan and purpose of CCVA questionnaire	Cheten Thinley & Karma, RDC
	13.00 - 14.00	Lunch break	
	14.00 - 15.30	Chiwogwise group work on resource mapping, hazard mapping, seasonal calendar, vulnerability matrix ranking.	Participants
	15.30 - 16.00	Tea break	
	16.00-16.30	Group presentation	Chiwog representatives
	16.30 - 17.00	Discuss/ planning for field program on CCVA with chiwog Tshokpas	WMD with Tshokpas
	17.00-18.00	Interview local government officials on CCVA	By staff of WCNP, RNR extension, TD, WMD, RDC
Day 2 11.09.2015	09.00 to 17.30	Continued interview of local government officials and chairman of farmers group associations and other invited village seniors citizens under Gangzur geog. A separate day interview was necessary as it was opportunity to capture the right persons of the goeg. The participants were served tea/snacks and lunch for the day (1.5 hours).	Interview conducted by WMD, RDC, WNCP, TD, RNR Extension staff
	17.30-18.30	Disbursement of TA/DA to participants	Karma Dema, WMD

Agenda for WMD geog level stakeholders consultation workshop on Nikachhu Rapid Watershed Assessment and Climate Change Vulnerability Assessment (CCVA) at geog

office, Tangsibji Geog - September 15, 2015

Date	Time	Agenda	Remarks
15/09/2015	08.30-09.00	Registration of participants	Chimi WMD
	09.00-09.15	Welcome address	Nidup Tshering,WMD
	09.15-09.45	Overview of Watershed Management Division and its	Nidup Tshering WMD
		role in DoFPS	
	09.45-10.00	Vote of thanks	Geog chairman
	10. 00-10.15	Tea break	
	10.15-11.00	Overview of Integrated Watershed Management at Nikachhu (WWF support)	Dorji Gyeltshen, WMD
		Tea break	
	11.00- 13.00	Presentation on Climate Change Scenario in Bhutan	Kuenzang Choden
		and discussion on the purposed CCVA questionnaire	CoRRB
		with the participants	
	13.00 - 14.00	Lunch break	
	14.00 - 15.30	Chiwogwise group work on resource mapping,	Participants
		hazard mapping, seasonal calendar, vulnerability	
		matrix ranking.	
	15.30 - 16.00	Tea break	
	16.00 16.30	Group presentation	Participants
	16.30 - 17.00	Discuss/ planning for field activities with chewog	WMD with Tshokpas
		Tshokpas	
	17.00-18.00	Disbursement of TA/DA to participants	Karma & Chimi, WMD

Agenda for geog level stakeholders consultation workshop on Kurichhu IWM and Climate Change Vulnerability Assessment (CCVA) at Turtoed Middle Secondary School hall, Kurtoed (17-18 September 2015)

Date	Time	Agenda	Remarks
	08.30-09.00	Registration of participants	Karma Dema, WMD
Day 1 17/09/2015	09.00-09.15	Welcome address	Tsering Gyeltshen,WMD
	09.15-09.45	Overview of Watershed Management Division and its role in DoFPS	Tsering Gyeltshen WMD
	09.45-10.00	Vote of thanks	Geog chairman
	10.00-10.15	Tea break	
	10.15-11.00	Overview of Integrated Watershed Management at Kurichhu (WWF support)	Tsering Gyeltshen, WMD
	11.00- 13.00	Presentation on Climate Change Scenario in Bhutan and purpose of CCVA questionnaire	Cheten Thinley & Karma, RDC
	13.00 - 14.00	Lunch break	
	14.00 - 15.30	Chiwogwise group work on resource mapping, hazard mapping, seasonal calendar, vulnerability matrix ranking.	Participants
	15.30 - 16.00	Tea break	
	16.00-16.30	Group presentation	Chiwog representatives
	16.30 - 17.00	Discuss/ planning for field program on CCVA with chiwog Tshokpas	WMD with Tshokpas
	17.00-18.00	Interview local government officials on CCVA	By staff of WCNP, RNR extension, TD, WMD, RDC
Day 2 18.09.2015	09.00 to 17.30	Continued interview of local government officials and chairman of farmers group associations and other invited village seniors citizens under Gangzur geog. A separate day interview was necessary as it was opportunity to capture the right persons of the goeg. The participants were served tea/snacks and lunch for the day.	Interview conducted by WMD, RDC, WNCP, TD, RNR Extension staff

Note: Trained WCNP staff on CCVA questionnaire who could not attend consultation meeting at Lhuentse Dzongkhag and Gangzur geog office.

### Agenda for Chiwog level consultation meetings for CCVA in Lhuentse Dzongkhag

A day consultation meetings were organized in chiwogs involving one member from each family. In the morning, participants were briefed on purpose of the meeting and future plan (1 hour). Rest of the time was spent on interviewing CCVA questionnaire.

No lunch served during the chiwog level meeting as the venue was in their village. However, participants were paid DSA as per the government entitlements.

Annex 5: Bhutan Activity 1.2.2A: Agenda for the WCP-UWICE-WWF Climate Change Adaptation Training held in Bumthang, June 15-18, 2015

## WCP Climate adaptation training workshop agenda Monday (15 June, 2015)

Time	Content
9.00-9.30	Registration
9.30- 10.00	Opening remarks by CFO, Wangchcuk Centennial National Park
<b>Unit 1-Introductory</b>	
	Rationale and content of the training course
10.00-10.30	Self Introduction and sharing expectations by the participants
10.30-11.00	Group photo followed by tea break
11.00-11.30	Introduction to WCNP
	Introduction to WWF
<b>Unit 2- Understanding th</b>	e basics of Climate change
	Formation of earth and functions of its parts
	The ideal process of how nature controls climate
11.30-13.00	Greenhouse gas and greenhouse gas "effect".
	Carbon dioxide and carbon cycle
13.00-14.00	Lunch Break
14.00-15.00	Key concepts in climate change adaptation
15.00-15.30	Tea break
16.15-17.00	Discussion and short documentary

Tuesday (June 16, 2015)

Tuesday (Julie 10	, 2013)	
Time	Content	
Unit 3-Impacts of climate		
9.00-11.30	Understanding the impacts of climate change	
	Impacts of climate change in Bhutan	
11.30-11.45	Tea break	
Unit 4- Understanding climate change vulnerability		
11.45-13.00	Understanding climate change vulnerability and assessment methods	
	Climate change vulnerability assessment of WCNP	

13.00-14.00	Lunch break
14.00-15.00	Documentary on Himalayan Meltdown: The one-hour film examines the shrinking glaciers of the Himalayas and the effects they have on the lives and livelihoods of billions of people in Asia. The movie illustrates solutions, small and large, simple and technologically complex, for coping in a changing environment that can make the difference between survival and disappearance
15.00-15.30	Tea break
15.30-17.00	Discussion

### **Wednesday (June 17, 2015)**

	Weunesday (June 17, 2013)		
Unit 5- Climate change Adaptation and Mitigation			
9.00-11.30	Concept of climate change adaptation and mitigation		
	Mainstreaming climate change adaptation		
11.30-12.30	Tea break		
12.00-13.00	Two short documentaries on climate mitigation and adaptation		
	(UNFCCC&Imja lake)		
1300-14.00	Lunch break		
Group work on understanding impacts of climate change in respective locality and propose			
adaptation measures			
14.00-15.30	Group division and brainstorming		
15.30-16.00	Tea break		
16.00-17.00	Group report back-presentations by group leader		

### **Thursday (June 18, 2015)**

Unit 6- Linking climate adaptation and disaster risk reduction		
	Introduction to disaster risk reduction	
9.00-11.00	Linkage between climate adaptation and disaster risk reduction	
11-11.30	Tea break	
Unit 7 - Payment for Ecosystem Services (PES)-method of adaptation to climate change		
	Concept of payment for ecosystem services (PES) and its needs	
11.30-13.00	Payment for Ecosystem Services experience in Bhutan	
13.00-14.00	Lunch break	

14.00-15.00	Group work on PES in respective locality
	Tea break
15.30-17.00	Documentary on DamNation: This is a 2014 advocacy documentary film about the changing attitudes in the United States concerning the large system of dams in that country. The film was released on March 10, 2014. It will give us a though if what we do in Bhutan is right way ahead.
17.00-17.30	Training workshop evaluation
17.30-17.45	Closing

**Annex 6:** Bhutan Activity 1.2.4: Agenda for the UWICE Climate Change Vulnerability and Adapation Training for farmers, TangbiVillage, Chokor Geog, Bumthang Dzongkhag, WCP May 10-13, 2015 and Dhur Village, Chokor Geog, Bumthang Dzongkhag, WCP, May 15-17, 2015

Agenda for Community Awareness Training and Workshop on Climate Change Vulnerability and Adapation		
Venue & Date: Tangbi(10th to 13th May, 2015), Dhur(15th to 17th May, 2015)		
	1	
Day 1.		D W 1
Desistantia a	9.00 - 9.30 Am	Dawa Yoezer and
Registration		Kinley Choden
Program		Cym Chalthan
Opening	9.30 - 10.00 Am	Gup, Chokhor Gewog
Tea	10.00 - 10.30 Am	
Introduction of the session	10.30- 11.00 Am	Tenzin Choigey
Understanding climate change	11.00 - 12.30 Pm	Kinley Choden and Dawa Yoezer
Understanding climate change  Lunch	12.30 -1.30 Pm	Dawa 10ezei
Luncii		Tenzin Choigey and
Understanding Community Vision	1.30 - 3.00 Pm	Dawa Yoezer
Tea	3.00 - 3.30 Pm	
Indentifying the problem & constraints	3.30 - 5.00 Pm	Kinley Choden
	•	
Day 2.		
Causes and Impacts of climate Change	9.00 - 10.00 AM	Dawa Yoezer
Tea	10.00 - 10.30 AM	
Climate Change impacts on Community and people	10.30 - 12.30 AM	Kinley Choden
Lunch	12.30 -1.30 PM	
Exercise in Village groups: Observed		
changes	1.30- 3.00 PM	Tenzin Choigey
Tea	3.00 - 3.30 PM	
Water Resources and climate change	3.30 - 5.00 PM	Dawa Yoezer
Day 3.		
Climate Change Adapation and Strategies	9.00-10.00 AM	Tenzin Choigey
	10.00 - 10.30 AM	Telizili elloigey
		Kinley Choden
		IXIIICY CHOUCH
		Dawa Voezer
		Telizili elloigey
		Kinley Choden
Tea Community Waste Management Lunch AHM project plans Training Recap Tea Discussion, Wrap up and Feed backs	10.00 - 10.30 AM 10.30 - 12.30 AM 12.30 -1.30 PM 1.30 - 2.30 PM 2.30 - 3.00 PM 3.00 - 3.30 PM 3.30 - 5.00 PM	Dawa Yoezer Tenzin Choigey  Kinley Choden

**Annex 7:** Bhutan Activity 1.2.5: Agenda for the UWICE Climate and Water Resources Data Collection, Analysis and Management, September 14-16, 2015

### **Training Program**

<u>Training Title: UWICE Climate and Water Resources Data Collection, Analysis and Management.</u>

Sponsor: WWF Asia High Mountain Project

Day 1	Monday, 14/09/2015	
Time	Topic	Remarks
9.00 -10.30	<ul> <li>Opening, Introduction to the course, Expectations.</li> <li>Introduction to Hydro-Meteorology; Water Cycle, Importance and Applications.</li> </ul>	
10.30- 11.00	Tea Break	
11.00 - 13.00	<ul> <li>Parameters in Water and Climate Studies</li> <li>Instruments for Water and Climate Studies</li> <li>Practical Session</li> </ul>	
13.00- 14.00	Lunch	
14.00 - 15.30	<ul> <li>Practical session on Climate Data Collection at Chamkhar Class A Met Station.</li> </ul>	Need Bus/Cars for
15.30- 16.00	Tea Break	transportation to Chamkhar and
16.00- 17.00	<ul> <li>Practical session on Water Data Collection at Kurjey Principal Hydrology Section.</li> </ul>	Kurjey.
Day 2	Tuesday, 15/09/2015	
Day 2 Time	Tuesday, 15/09/2015 Topic	Remarks
	**	Remarks
Time	<ul> <li>Topic</li> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and</li> </ul>	Remarks
9.00 -10.30 10.30-	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> </ul>	Remarks  Computer Lab with
9.00 -10.30 10.30- 11.00 11.00 -	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> </ul> Tea Break	
9.00 -10.30 10.30- 11.00 11.00 - 13.00 13.00-	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> <li>Tea Break</li> <li>Practical session on Water Data Analysis</li> </ul>	Computer Lab with Projector and
7ime  9.00 -10.30  10.30- 11.00  11.00 - 13.00- 14.00  14.00 - 15.30  15.30- 16.00	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> <li>Tea Break</li> <li>Practical session on Water Data Analysis</li> <li>Lunch</li> </ul>	Computer Lab with Projector and
7ime  9.00 -10.30  10.30- 11.00  11.00 - 13.00  14.00  14.00 - 15.30  15.30-	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> <li>Tea Break</li> <li>Practical session on Water Data Analysis</li> <li>Lunch</li> <li>Practical session on Climate Data Analysis</li> </ul>	Computer Lab with Projector and
7ime  9.00 -10.30  10.30- 11.00  11.00 - 13.00- 14.00  14.00 - 15.30- 16.00- 16.00-	<ul> <li>Cryosphere; importance and methodology.</li> <li>Water-Climate Data Network, Management and sharing.</li> <li>Tea Break</li> <li>Practical session on Water Data Analysis</li> <li>Lunch</li> <li>Practical session on Climate Data Analysis</li> <li>Tea Break</li> </ul>	Computer Lab with Projector and

9.00 -10.30	<ul><li>Climate Change; Introduction and scenarios</li><li>How climate scenarios work- activity</li></ul>	
10.30- 11.00	Tea Break	
11.00 - 13.00	<ul> <li>Downscaling Climate scenarios – practical session.</li> <li>Vulnerability assessment and adaptation strategies.</li> <li>Discussion</li> </ul>	Computer Lab with Projector and
13.00- 14.00	Lunch	computers
14.00 - 15.30	<ul> <li>Group exercise on Water and Climate Report for Chamkhar/Kurjey of WCNP.</li> </ul>	
15.30- 16.00	Tea Break	
16.00- 17.00	<ul><li>Presentation and discussion on the situations.</li><li>Closing</li></ul>	

### **Annex 8:** AHM Project Year 3 Media Coverage in Kyrgyzstan

### Kyrgyzstan Media Coverage

### <u>Kyrgyzstan Activity 1.1.3A:</u> <u>Int'l snow Leopard Day – Engilchek and Akshyrak – October</u> 20, 23, 2015

- News on oblast TV "Issyk-Kol" October 25, 2014, 20:30
- News in the national TV "the First canal OTRK" October 26, 2015, 21:30.
- http://www.globalsnowleopard.org/ru/2015/03/01/snow-leopard-day-akshyirak/

### Kyrgyzstan Activity 1.1.3B: International Mountain Day – Barskoon – December 11, 2015

- http://www.fao.org/forestry/internationalmountainday/80416/en/
- http://www.ekois.net/?p=16273&src=letter

### Kyrgyzstan Activity 1.1.3D – Earth Day – Karakolka- April 22, 2015

- News on oblast TV "Issyk-Kol" April 24, 2015, 20:30
- News in the national TV "the First canal OTRK" April 26, 2015, 21:30.
- http://ekois.net/vsemirnyj-den-zemli-prazdnovali-v-s-karakolka-ysyk-kulskojoblasti/?src=letter

### <u>Kyrgyzstan Activity 1.1.3E – May 22, 2015 – Land of The snow Leopard Celebration, Akshyrak</u>

- Special reporting story oblast TV "Issyk-Kol" May 30, 2015, 20:30
- News in the national TV Changel OTRK 06.06.2015, 21:30.
- https://www.facebook.com/FSDA.ru/photos/a.735754356543355.1073741828.73547 3483238109/777207512398039/?type=1
- http://ekois.net/festival-zemlya-snezhnogo-barsa-proshel-v-sele-akshyjrak-zheti-oguzskom-rajone-ysyk-kulskoj-oblasti/?src=letter

### Kyrgyzstan Activity 1.1.3F – Eco-camp July 18-28, 2015

- Special reporting story the national TV «The Fifth Chanel» July 25, 2015, repeated July 26, 2015
- News in the national TV KTR July 25, 2015, 17.30
- Special reporting story Provingcial TV station "Issyk-Kol," July 10, 2015

### Kyrgyzstan Activity 1.3.9: in October 2014, WWF supported establishment and launch of Local Development Funds

- http://ekois.net/cozdany-mestnye-fondy-razvitiya-mfr/?src=letter
- http://wwf.ru/resources/news/article/12874
- http://mdt.org.ru/news/90

### Kyrgyzstan Activity 2.5.2 GSLEP Steering Committee Meeting

- Interview with Farida Balbakova on Kyrgyz Radio 1 "Theme of the Day" show, March 20, 2015, 15.00.PM
- http://www.mountainpartnership.org/news/news-detail/en/c/281893/

**Annex 9:** Regional Activity 2.1.9: Agenda for the Bhutan International Glacier Symposium held at the Ugyen Wangchuck Institute for Conservation and Environment (UWICE) in Bumthang Dzongkhag, Bhutan from April 16-18, 2015.

Thursd	ay , 16 April 2015			
Time	Program			
A. Ope	ning Session			
1400			Arrival of Participants	
1430	Arrival of Chief Gues Lyonpo Yeshey Dorj			
	Honorable Minister, Ministry of Agriculture and Fores			
1435			Marchang Ceremony	
1440			Welcome Addres	
	and the Santana and the Co		Nawang Norb	
	Director, UWICE, Depart	tment of Forests	and Park Services, MoAl	
B. Key	note Addresses			
1450	Importance of Himalayan Glaciers	Lyonpo Yeshey Dorji	Honorable Minister, Ministry of Agriculture and Forests- Bhutan	
1510	Glaciers and values; Glaciers and Institutions	Benjamin S. Orlove	School of International and Public Affairs, Columbia University	
1540	Glaciers of Bhutan – A Pictorial Presentation	Sangay Norbu	Jigme Dorji National Park, DoFPS, Bhutan	
1620	Vote of Thanks	Dawa Yoezer	UWICE, DoFPS, Bhutan	
1630	Tea /Group Photo and Disperse			
1800	Reception Dinner at UWICE Cafeteria			

Friday,	17 April 2015		
Time	Title	Presenter	
0830	Registration of Participants		
Session	1: Glaciers of Bhutan and Change		
0900	Climate, Snow and Glacier Studies in Bhutan	Chimmi Dorji, Bhutan	
0920	Mountain Glacier Change in Bhutan and the Mon- soonal Himalayas – Lessons from the Last Millenni- um	Joerge Schaefer, USA	
0950	First in situ Record of Decadal Glacier Mass Balance (2003-2014) from the Bhutan Himalayas	Phuntsho Tshering, Bhutan	
1030	Q&A Session		
1100	Tea		
Session	2: Measuring and Monitoring Glaciers		
1130	Defining and Measuring the Value of Glaciers in an Era of Climate Change	Benjamin S. Orlove, USA	
1200	Snow Cover Mapping and Monitoring in the Hindu Kush Himalayas	Deo Raj Gurung, ICIMOD	
1230	Measuring Glacier Changes at Mountain Range Scales with Synthetic Aperture Radar (SAR)	Richard R. Forster, USA	
1300	Lunch	C. C. S.	
1400	Q&A Session		
Session	3: Glaciers and Climate Change		
1430	Quantifying Past, Present and Future Glacier Change in Bhutan and Implications for Regional Water Re- sources	Summer Rupper, USA	
1500	June 16, 1818 – The Glacier Lake Outburst at Glacier de giétroz and the "Discovery" of the Ice Age	Christian Schluech- ter, Switzerland	
1530	Tea		
1600	Indian Himalayan Glacier and their Response to the Climate Change	Arun Chaturvedi, India	
1630	Q&A Session		

Time	Title	Presenter
Session	4: Glacier Retreat	
0900	Response of Northwest Himalayan Glaciers to Climate  – A Case Study from Ladakh and Zanskar	R.K. Ganjoo, India
0930	638 Years of Summer Temperature Variability over the Bhutanese Himalaya Reconstructed from Tree Rings: A Record for Placing Recent Temperature Change and Glacier Retreat in a Long-term Perspective	Edward R. Cook, USA
1000	Q&A Session	
1030	Tea	
	5: Panel Discussions - Chair: Chencho Norbu, Directo	r General,
	5: Panel Discussions - Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan	
	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan Way Forward	r General, Group Work
	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration	
Session	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs	
	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs  Lunch	
Session	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs	
Session 1300	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs  Lunch	
Session 1300 1400	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs  Lunch  Group 1 Presentation	
1300 1400 1420	5: Panel Discussions – Chair: Chencho Norbu, Directo DoFPS, MoAF, Bhutan  Way Forward  - Regional and International Collaboration  - Research Needs  Lunch  Group 1 Presentation  Group 2 Presentation	

**Annex 10:** Regional Activity 2.2.5: Agenda for the AHM Project Learning and Sharing Meeting held in Kathmandu, January 26-30, 2015



### WWF Asia High Mountains Project Learning and Sharing Meeting and Climate Change Adaptation Training

a workshop for project staff and partners

26-30 January 2015 Kathmandu, Nepal

Monday, 26 January – Snow Leopard Research Day

6:30-8:30	Breakfast
8:30	Workshop Registration
9:00	Welcome and News
7.00	Introductions: Answer with your feet!
9:30	Bhutan AHM Snow Leopard Research
10:00	India AHM Snow Leopard Research
10:30	Kyrgyzstan AHM Snow Leopard Research
11:00	Group Photo
11.00	Tea Break
11:30	Mongolia Snow Leopard Research
12:00	Pakistan AHM Snow Leopard Research
12:30	Mongolia AHM Snow Leopard Research
13:00	Lunch
14:00	Nepal AHM Snow Leopard Research
14:45	Wildlife DNA Research
15:30	Introduction to Wildlife DNA Collection from Snow
16:00	Tea Break
16:30	Asia High Mountains Project Reporting Discussion
17:00	Group Discussion
17:30	Recap and Wrap Up
19:00	Dinner

Tuesday, 27 January – Community Conservation and Livelihood Day

9:00	Session Introduction and News Community Conservation
9:30	Bhutan: Community Conservation and Livelihood Work in Wangchuck Centennial National Park
10:00	India: Community Conservation and Livelihood Work in Sikkim

10:30	Kyrgyzstan: Community Conservation and Livelihood Work in the Central Tian Shan
11:00	Tea Break
11:30	Mongolia: Community Conservation and Livelihood Work in the Altai-Sayan Ecoregion
12:00	Nepal: Community Conservation and Livelihood Work in the Kangchenjunga Conservation Areas
12:30	Pakistan: Community Conservation and Livelihood Work in Chitral and Gilgit-Baltistan
13:00	Lunch
14:00	Community Anti-Poaching Operations: Short Presentations and Discussion
15:00	Livestock Insurance and Predator Proof Corrals Short Presentations and Discussion
16:00	Tea Break
16:30	Regional Activities – SL Secretariat, SAP, APGS
17:00	Group Discussion
17:30	Recap and Wrap Up
19:00	Dinner

## Wednesday, 28 January – Climate and Water Seminar and Adaptation Training – Day 1

114111111	g – Day 1
9:00	Session Introduction and News
7.00	Climate Change
9:30	Climate Impact on Glaciers and Water Resources (WWF)
10:00	Impact of Permafrost Thaw in Mountain Areas (ICIMOD)
10:30	Current and future water availability in the Hindu Kush-Himalaya region (ICIMOD)
11:00	Tea Break
11:30	Climate Adaptation in the Himalayas (CARE)
12:00	WWF Hariyo Ban Climate Adaptation Work (WWF)
12:30	Findings of the Snow Leopard Range-wide Climate Review (WWF)
13:00	Lunch
14:00	What is Climate Smart Conservation?
14:45	Group exercise: Is it climate smart?

15:15	Climate-smarting Strategies and Work Plans
16:00	Tea Break
16:30	Country Team Exercise: Review Work Plans
19:00	Dinner
20:00	Special WWF Staff Session: Introduction to the WWF Network-wide Snow Leopard Strategy Action Plan

Thursday, 29 January – Climate Adaptation Training – Day 2

Tiluisua	y, 29 January – Chmate Adaptation Training – Day 2
9:00	Session Introduction and News
	Country Group Exercise: Observed Changes
10:00	Overview of Vulnerability Assessments (VAs)
11:00	Tea Break
11:30	Country Team Exercise: Planning VAs for AHM Work –Country Teams Consider Key Questions for VAs
13:00	Lunch
14:00	AHM Project Communications: Storytelling Exercise
15:00	Species Vulnerability Assessment Tool: The Snow Leopard
16:00	Tea Break
16:30	Group Exercise: Use the Species Tool to Assess Vulnerability of other Local Species (e.g. Prey species)  Group Exercise: Develop adaptation stories from your landscape
17.20	Films The Last Velt Hander of Dhe
17:30	Film: The Last Yak Herder of Dhe
19:00	Dinner

Friday, 30 January – Climate Adaptation Training – Day 3

9:00	Session Introduction and News
	Introduction to Climate Scenario Planning
9:45	Presentation of Observed Trends and Projections for Project AHM Sites
10:30	Country Team Exercise: Scenario Planning Prep- Conservation Targets, Key Livelihoods, Social Targets
11:00	Tea Break

11:30	Country Team Exercise: Use project site scenarios to assess projected types of change for conservation and social targets
13:00	Lunch
14:00	Review of Morning Activities and Implications for Work Plans: Guided Report Back
14:30	Time for country teams seeking special help from trainers and experts on specific problems
15:30	Training Wrap Up
16:00	Tea Break
7:00	Dinner

**Annex 11:** Regional Activity 2.5.2: Agenda for the Global Snow Leopard Conservation Forum Secretariat Steering Committee Meeting held in Koi Tash, Kyrgyzstan, March 18-21, 2015





### PROGRAM OF THE STEERING COMMITTEE MEETING GLOBAL SNOW LEOPARD AND ECOSYSTEM PROTECTION PROGRAM (GSLEP)

Hosted by the State Agency of Environmental Protection and Forestry of the Government of the Kyrgyz Republic

Co-organizers and cosponsores: GSLEP Working Secretariat,
Global Environment Facility (GEF), Nature and Biodiversity Conservation Union (NABU), Snow
Leopard Trust (SLT),
United Nations Development Program (UNDP), World Wildlife Fund (WWF)

#### Meeting Objectives and Program

The Bishkek Declaration was adopted by 12 range countries during the Snow Leopard Forum in October 2013 under the leadership of H.E. President Atambaev. To review and align various elements of management and implementation of the Global Snow Leopard and Ecosystem Protection Program (GSLEP), the first steering committee meeting is being organized.

#### Meeting Goals:

- · Define and formalize the structure, role and process of the GSLEP Steering Committee
- · Review and confirm the structure and role of the GSLEP Secretariat.
- Review progress with GSLEP operationalization since the 2013 Global Forum.
- Discuss the status of development of the management plans for the Program's 23 target landscapes.
- Discuss strategic and near-term goals for resource mobilization, including the project pipeline, for the Program's national and global components.
- Standard information sharing mechanisms for regularly evaluating the progress under the GSLEP program

#### Working Languages

English and Russian (with simultaneous interpretations)

### Bishkek, Kyrgyz Republic, March 19-21, 2015

	DAY 0: WEDNESDAY, MARCH 18, 2015
	(Jannat Resort)
	Arrival and registration of participants
- 1	Reception

	DAY 1: THURSDAY, MARCH 19, 2015 (Jannat Resort)
09:00-10:00	Registration- Conference hall lobby
10:00-10:45	OPENING CEREMONY- Conference hall Opening Remarks— Tayirbek Sarpashev, First Vice Prime Minister of the Kyrgyz Republic
	Welcome speech-Sabir Atadjanov, Director, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic
	Brief remarks by the Steering Committee meeting co-organizers (3 minutes each) UNDP, SLT, NABU & WWF
	Introduction to objectives and expected outcomes, processes, and housekeeping
10:45-11:15	Coffee Break, Group photo (tbd)
11:15-13:00	PLENARY SESSION 1: Presentations by range countries on progress till date including status of management plans for the 23 landscapes and future action plans  Statements by Heads of Delegations of the snow leopard range countries (7 minutes each)  Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyz Republic, Mongolia, Nepal, Pakistan, Russian Federation, Tajikistan, Uzbekistan
13:00-14:00	Lunch (Jannat Resort)
14:00-15:30	PLENARY SESSION 2: Management Planning including economic evaluation of high altitude landscapes & green growth  Discussion on best practices concerning the Snow Leopard and Ecosystem protection (specific activity results)
15:30-16:00	Coffee Break
16:00-17:00	PLENARY SESSION 3: Innovations, new initiatives, knowledge sharing, and mechanisms for coordination and convergence between Partners of GSLEP
17:00-18:00	PLENARY SESSION 4: Standard management system for information sharing of GSLEP program
18:30-20:30	Dinner Reception on behalf of the Government of the Kyrgyz Republic Ethno - Complex «Supara»
20.30-21.00	Transfer by buses to Januar Resort

DAY 2: FRIDAY, MARCH 20 (Jannat Resort)		
09.30-10:30	PLENARY SESSION 5: Resource mobilization strategies	
10:30-10:45	Coffee Break	
10:45-12:45	PLENARY SESSION 6: Consulting and designing the regional GEF Medium Sized Projects and enhancing coordination among the different National GEF projects	
12:45-14:00	Lunch « Jannat Resort »	
14:00-15:30	PLENARY SESSION 7: Defining and formalizing the structure, role and process of the Steering Committee & Program Secretariat	
15:30-16:00	Coffee Break	
16:00-17:00	HIGH-LEVEL SEGMENT: Finalizing and signing the Resolution	
17:00-18.00	Closing Ceremony: Summary - Next Steps	
18:30-20:30	Dinner « Jannat Resort »	

DAY 3: SATURDAY, MARCH 21
(Bishkek)
Nooruz Cultural celebrations
Transfers to airport

#### Annex 12: WWF US Year 3 Communications for the AHM Project

#### Websites

- WWF developed a new "<u>Initiative</u>" page for AHM, which is designed to house all relevant stories and reports, as well as link to "Project" pages for each of the project's sites and other major initiatives. As an example, see the project page for Third Pole GeoLab here.
- WWF amplified promotion for the AHM project by including it under WWF's <u>Climate</u> homepage, <u>Climate Adaptation</u> page and <u>Freshwater</u> homepage.

### Stories & Storytelling

- WWF organized a camera crew to join the snow leopard collaring trip in Nepal's Kangchenjunga Conservation Area in November-December 2014 which resulted in 40+ hours of professional snow leopard tracking video and still shots that will be leveraged for deliverables throughout the future of the project.
- WWF held a storytelling training session with the 6 AHM Project countries during the AHM Learning and Sharing Meeting in Kathmandu in January 2015, which resulted in several field-generated short stories for web publication.
- The AHM communicator secured a feature opportunity in *World Wildlife* magazine, which included an asset-gathering trip to Kyrgyzstan in May 2015. The trip will result in a feature story about climate in the Tian Shan being published in the November 2015 issue that will be illustrated with professional photos.
- WWF Regularly published web stories about the AHM project as content became available, including:
  - o The Earth Has a Third Pole
  - o Human-Wildlife Conflict Mitigation in Nepal
  - o Promoting Sustainable Livelihoods in Kyrgyzstan
  - o Citizen Scientists Saving Snow Leopards

#### Social Activities

• WWF US leveraged its 1.6 million followers on Facebook; 61,500 followers on Twitter; and 138,000 on Instagram to promote AHM content, including Facebook and Twitter posts supporting each new web story.

### Reports

Throughout the year WWF issued and promoted technical reports, including:

- Climate Vulnerability In Asia's High Mountains: How Climate Change Affects Communities and Ecosystems in Asia's Water Towers
- Guardians of the Headwaters: Snow Leopards, Water Provision, and Climate Vulnerability

#### **Annex 13:** AHM Project Year 3 Activity Photos

### **Bhutan**



**Bhutan Activity 1.2.1B.** Delivery of clean drinking water from a springshed under improved protection at Rabji Gonpa Village in Sephu Geog in Wangchuck Centennial Park's Western Range. Date???



**Bhutan Activity 1.2.1C.** UWICE-led climate-smart village consultation meeting with farmers from Shawa Village in Gangzur Geog in eastern WCP. Date???



**Bhutan Activity 1.2.1D.** Participants of the Watershed Management Division's dzongkhaglevel watershed management plan consultation meeting, held from August 27-29, 2015 in the Phobjikha Valley, Wangdue Dzongkhag.



**Bhutan Activity 1.2.1D.** Participants of the WMD-led rapid watershed assessment training held in Phobjikha, Wangdue Phodrang Dzongkhag on August 27-29, 2015.



**Bhutan Activity 1.2.1D.** Participants of the Watershed Management Division-led climate vulnerability assessment consultation meeting held in Gangzur Geog, Lhuentse Dzongkhag, September 10-11, 2015.



**Bhutan Activity 1.2.1D.** Participant of a Watershed Management Division-led natural resource and climate change impact risk mapping exercise, Kurtoe Geog, Lhuentse Dzongkhag September 17-18, 2015.



**Bhutan Activity 1.2.1D.** Participant of a Watershed Management Division-led chiwog-level climate vulnerability assessment consultation meeting held in Nye Pema Chen Village, Gangzur Geog, Lhuentse Dzongkhag, September 14, 2015.



**Bhutan Activity 1.2.1D.** Climate vulnerability assessment survey participant in Gangzur Geog, Lhuentse Dzongkhag, September 2015.



**Bhutan Activity 1.2.2A.** Participants of the climate adaptation training organized by Wangchuck Centennial Park in Lamai Goempa Village, Bumthang, June 15-21, 2015.



**Bhutan Activity 1.2.2B.** Participant of the UWICE water scarcity survey conducted in Chokhor Geog in Wangchuck Centennial Park in Month???, 2015.



**Bhutan Activity 1.2.3.** Renovated bridge that will increase seasonal mobility of livestock and pasture rotation rates along the main trekking route near Gomthang Village, Chokhor Geog, in Wangchuck Centennial Park's (WCP) Central Range, June 2015.



**Bhutan Activity 1.2.4.** UWICE-organized climate change adaptation training for Chokhor Geog residents held May 15-17, 2015 in Dhur Village, Bumthang WCP.



**Bhutan Activity 1.2.5.** Participants of a UWICE-organized hydrological monitoring training examining a river flow gauge station near Jakar, Bumthang Dzongkhag, September 14-16, 2015.



**Bhutan Activity 1.2.5.** Participants of a UWICE-organized hydrological monitoring training examining hydro-meteorological station equipment near Jakar, Bumthang Dzongkhag, September 14-16, 2015.



**Bhutan Activity 1.3.1.** Members of the Sephu Geog Snow Leopard Conservation Committee (SLCC) at the SLCC establishment meeting, Sephu Geog, Wangdue Phodrang Dzongkhag, Wangchuck Centennial Park, June 3-5, 2015.



**Bhutan Activity 1.3.1.** Member of the Sephu Geog Snow Leopard Conservation Committee (SLCC) at the SLCC establishment meeting, Sephu Geog, Wangdue Phodrang Dzongkhag, Wangchuck Centennial Park, June 3-5, 2015.

# <u>India</u>



**India Activity 1.1.10.** Leaders of Lachen Village, North Sikkim explaining to local residents the new brochure on improving the sustainability of the local caterpillar fungus, July 18, 2015.



**India Activity 1.3.1A.** Participants of the WWF environment camp for teachers during a field visit near Lachen Village, North Sikkim on September 8, 2015.



**India Activity 1.3.1B.** Participants of a bio-briquette training held at Lachung Village, North Sikkim, September 11, 2015.



**India Activity 1.3.11D.** Participants of the WWF-Ecotourism and Conservation Society of Sikkim (ECOSS) tourism consultation meeting, Gangtok, Sikkim, March 3, 2015.



**India Activity 1.3.11E.** Ecotourism capacity building cooking training for local homestay operators, Kitam Village, South Sikkim, April 11, 2015.



**India Activity 1.3.11E.** Participants of the ecotourism consultation meeting held on September 10, 2015 at Lachen Village, North Sikkim.



**India Activity 1.3.11F.** Lachen Village headman adding his thumbprint to the Zero Waste Himalaya Day sign at Lachen Village, North Sikkim on August 15, 2015.



**India Activity 1.4.1.** WWF snow leopard survey camera trap photo of a snow leopard in North Sikkim taken on August 2, 2015.

## **Kyrgyzstan**



**Kyrgyzstan Activity 1.1.3A.** Telling of "The Snow Leopard Legend" at the International Snow Leopard Day celebration in Englichek Village, Issyk Kul Province, October 20, 2014.



**Kyrgyzstan Activity 1.1.3A.** International Snow Leopard Day participants, Akshyrak Village, Sarychat-Ertash State Reserve, October 23, 2014.



**Kyrgyzstan Activity 1.1.3A.** Ecological theater, International Snow Leopard Day, Akshyrak Village, Sarychat-Ertash State Reserve, October 23, 2014.



**Kyrgyzstan Activity 1.1.3A.** Conservation pledge of children and parents, International Snow Leopard Day, Akshyrak Village, Sarychat-Ertash State Reserve, October 23, 2014.



**Kyrgyzstan Activity 1.1.3A.** Best snow leopard costume and make up contest, International Snow Leopard Day, Akshyrak Village, Sarychat-Ertash State Reserve, October 23, 2014.



**Kyrgyzstan Activity 1.1.3A.** Children's snow leopard drawing contest, International Snow Leopard Day, Akshyrak Village, Sarychat-Ertash State Reserve, October 23, 2014.



**Kyrgyzstan Activity 1.1.3B.** International Mountain Day celebration, E. Kendyrbajev Secondary School, Barskoon Village, Issyk Kul Province, December 11, 2014.



**Kyrgyzstan Activity 1.1.3C.** Children's snow leopard assembly and essay and drawing competition winners, Bishkek Secondary School No. 5, Bishkek, February 9, 2015.



**Kyrgyzstan Activity 1.1.3D.** Earth Day celebration performance, Karakolka Village, Issyk Kul Province, April 22, 2015.



**Kyrgyzstan Activity 1.1.3E.** Performers, Land of the Snow leopard Festival, Akshyrak Village, Issyk Kul Province, May 22, 2015.



**Kyrgyzstan Activity 1.1.3E.** Audience, Land of the Snow leopard Festival, Akshyrak Village, Issyk Kul Province, May 22, 2015.



**Kyrgyzstan Activity 1.1.3E.** Participants, Land of the Snow leopard Festival, Akshyrak Village, Issyk Kul Province, May 22, 2015.



**Kyrgyzstan Activity 1.1.3F.** Children participating in an origami animal making contest during the WWF-Children's eco-camp held at Lake Issyk Kul, Kyrgyzstan, July 27, 2015.



**Kyrgyzstan Activity 1.2.2.** Consultation meeting on pasture management between WWF and the Kyzyl Suu Village Committee, July 2015.



**Kyrgyzstan Activity 1.2.3.** Yak vaccination campaign, Kojendu Ranger Station, Sarychat-Ertash State Reserve, August 28, 2015.



**Kyrgyzstan Activity 1.3.9A.** Launch of the Engilchek Village Local Development Fund, Engilchek Village, Issyk Kul, October 20, 2014.



**Kyrgyzstan Activity 1.3.9A.** Monitoring and evaluation of local development fund activities, Engilchek Village, Issyk Kul Province, June 24, 2015.



**Kyrgyzstan Activity 1.3.9B**. Donated felt making machine for production of felt to be used in making handicrafts, Akshyrak Village, Issyk Kul Province Kyrgyzstan.



**Kyrgyzstan Activity 1.3.9B.** Sarychat-Ertash handicrafts booth, Oimo Central Asia Handicrafts Fair, Cholpon Ata Village, Issyk Kul Province, August 9, 2015.



**Kyrgyzstan Activity 1.4.9**. Presentation of equipment donated by WWF to the Sarychat-Ertash State Reserve during the Akshyrak Village International Snow Leopard Day Celebration, October 23, 2014.



**Kyrgyzstan Activity 1.4.9**. Staff of the Sarychat-Ertash State reserve in their new donated uniforms with ecological theater performers at the Akshyrak Village International Snow Leopard Day Celebration, October 23, 2014.



**Kyrgyzstan Activity 1.4.9**. Renovating the Eshekart ranger cabin, Sarychat-Ertash State Reserve, August 2015.

### **Mongolia**



**Mongolia Activity 1.1.3.** Khovd University students presenting their entries for the International Snow Leopard Day drawing contest, Khovd City, Khovd Aimag, October 23, 2014.



**Activity 1.1.3A-Mongolia.** WWF staff member collecting signatures on a petition pledging support for endangered species protection to mark International Snow Leopard Day, Khovd City, Khovd Aimag, October 23, 2014.



**Activity 1.1.3B-Mongolia.** Participants of the summer camp for school eco-club members at held at Kharkhiraa Children's Camp in Uvs Aimag (province) from June 27 to July 3, 2015.



**Activity 1.1.3C-Mongolia.** Screening of a new AHM-supported film on human-snow leopard conflict titled "The Spirit of the Mountain" at the Mankhan Soum school, Khovd Aimag, September 25, 2015.



**Activity 1.1.4-Mongolia.** Meeting between the Zereg Soum governor and Khovd Aimag pasture management specialists on compiling soum-level pasture databases, Zereg Soum, Khovd Aimag, November 10, 2014.



**Activity 1.2.1-Mongolia.** Interviewing livestock herders for the WWF climate change knowledge, attitude, and practice survey in Taishir Soum, Gobi-Altai Aimag, February 2, 2014.



**Activity 1.2.1-Mongolia.** Interviewing a livestock herder for the WWF climate change knowledge, attitude, and practice survey in Bukhmurun Soum, Uvs Aimag, December 16, 2014.



**Activity 1.3.4-Mongolia.** Participants of the WWF-led learning and sharing meeting on human-snow leopard conflict held at the offices of WWF, Ulaanbaatar, November 19, 2014.



**Activity 1.4.1-Mongolia.** WWF Researchers with local citizen scientists conducting a snow leopard monitoring camera trap survey at Baatar Khairkhan Mountain, Zereg Soum, Khovd Aimag, January 9, 2015.

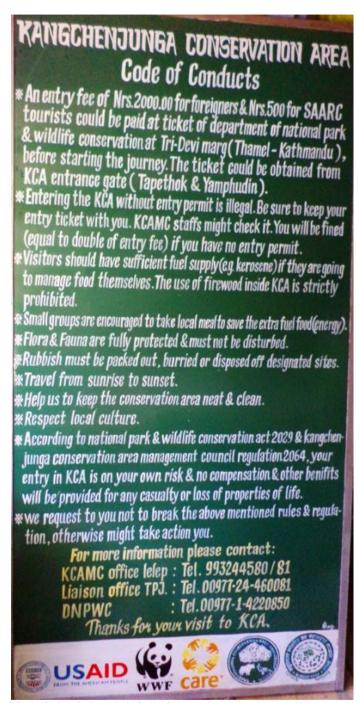


**Activity 1.4.5-Mongolia.** WWF-funded joint Mongol-Russian research team putting a satellite GPS tracking collar on a snow leopard in the Tsagaan Shuvuut Strictly Protected Area, Uvs Aimag, Mongolia, October 30, 2014.



Activity 1.4.6-Mongolia. A volunteer citizen scientist being trained to conduct snow leopard camera trap surveys at Darvi Mountain in Gobi-Altai Aimag, January 11, 2015.

#### **Nepal**



**Nepal Activity 1.1.3.** Information sign board erected with AHM Project funding in the Kangchenjunga Conservation Area of Nepal.



**Nepal Activity 1.1.9.** Participants of a CARE-led leadership skills training for traditionally excluded communities, Tapethok VDC, Kangchenjunga Conservation Area October 5-7, 2014.



Nepal Activity 1.2.2. Small scale irrigation channel, Tapethok VDC, Kangchenjunga Conservation Area, June 2015.



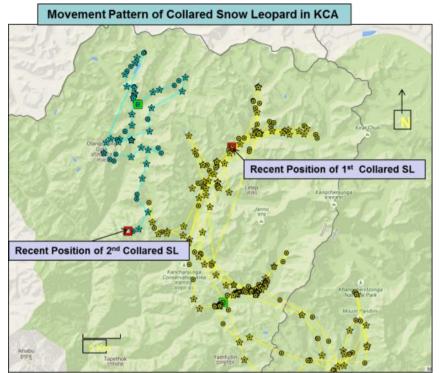
**Nepal Activity 1.2.2.** Small scale water storage pond, Tapethok VDC, Kangchenjunga Conservation Area, June 2015.



**Nepal Activity 1.2.3.** Wooden livestock bridge to improve access to remote pasturelands, Olangchung Gola VDC, June 2015.



**Nepal Activity 1.3.7.** Local essential oil processing plant established by the KCAMC with WWF support in Yamphudin Village, KCA.



Nepal Activity 1.4.5. Location map of movements of snow leopards with satellite tracking collars in the Kangchenjunga Landscape of Nepal and India, April 2015.



**Nepal Activity 1.4.5.** Local citizen scientists setting snares for snow leopard satellite GPS collaring work, Yangma Valley, KCA Nepal, November 2014.



**Activity 1.4.5-Nepal**. Joint snow leopard collaring expedition team members monitoring snow leopard snares in the Yangma Valley, KCA Nepal, December 2014.



**Nepal Activity 1.4.5.** Collared snow leopard captured in a camera trap, Yangma Valley, Kangchenjunga Conservation Area, May 25, 2015.

# **Pakistan**



**Pakistan Activity 1.1.5.** Snow leopard and climate change impact guest lecture and quiz competition for school nature clubs members in Booni Village, Chitral District, March 24, 2015



**Pakistan Activity 1.1.5B.** Student art created for a school Climate Change Seminar, Hoper Valley, Gilgit-Baltistan, May 13, 2015.



**Pakistan Activity 1.1.5B.** School Climate Change Seminar, Hoper Valley, Gilgit-Baltistan, May 13, 2015.



**Pakistan Activity 1.1.10A.** Women's breakout group during the focus group discussion facilitated by WWF for development of a Laspur Valley conservation and development plan. Laspur Valley, KP, October 4, 2014.



**Pakistan Activity 1.1.10D.** Conservation and natural resource management grant proposal writing training, Chitral Town, September 8, 2015.



Pakistan Activity 1.2.2. WWF climate survey team in Hoper Valley, GB, February 2015.



**Pakistan Activity 1.2.2C.** Pipes provided by WWF for improving an irrigation system in Hoper Valley, Gilgit-Baltistan, August 2015.



**Pakistan Activity 1.2.2C.** Improved lined irrigation channel Rathal Village, Hoper Valley, Gilgit-Baltistan, September 2015



**Pakistan Activity 1.2.2C.** Flood protection wall, Hoper Valley, Gilgit-Baltistan, September 2015.



**Pakistan Activity 1.2.3A.** Zhoya Zhoe Pasture grazing set aside, Laspur Valley, Chitral, June 2015.



**Pakistan Activity 1.2.3B.** Fodder crop cultivation plots, Hakalshal Village, Hoper valley, August 2015.



**Pakistan Activity 1.2.3C.** Multi-purpose tree plantation, Shakoshal Village, Hoper Valley, Gilgit-Baltistan, September 2015.



**Pakistan Activity 1.4.2B.** Snow leopard pug mark found during a snow leopard sign and prey species survey in Barpu Pasture, Hoper Valley, Gilgit-Baltistan. December 2014.



**Pakistan Activity 1.4.2.** Citizen scientists conducting a snow leopard prey species population survey in the Rumboor Valley, Chitral, KP, June 12-16, 2015.

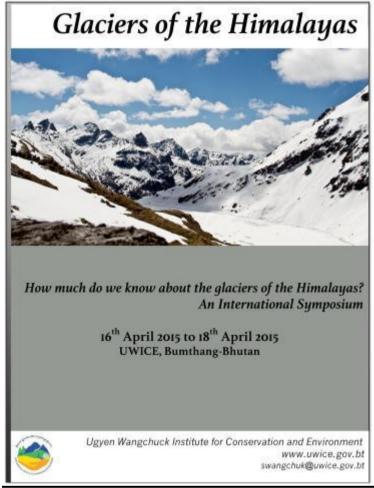


Pakistan Activity 1.4.2. Snow leopard sign and prey species survey area, Rumboor Valley, Chitral, KP, June 2015.



**Pakistan.** WWF flood disaster relief supply distribution, Rumboor Valley Chitral, August 2015.

## **Regional Activities**



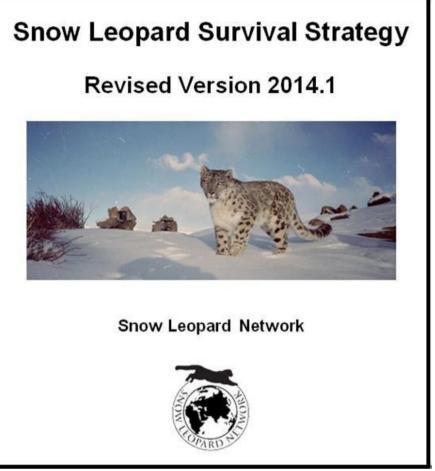
**Regional Activity 2.1.9.** Announcement for the Bhutan International Glacier Symposium, held April 16-18, 2015 at the Ugyen Wangchuck Institute for Conservation and Environment (UWICE), Bumthang, Nepal.



**Regional Activity 2.2.4.** WWF Presentation on AHM Project activities in eastern Kyrgyzstan given at the "Water and Mountains" section of the UN "Water for Life" conference held in Dushanbe from June 8-11, 2015.



**Regional Activity 2.2.5.** Climate change projection session at the AHM mid-Project learning and sharing meeting held in Kathmandu in January 2015.



**Regional Activity 2.3.3/2.4.4.** Cover of the updated climate-smart second edition of the Snow Leopard Survival Strategy released in October 2015.



**Activity 2.4.1. WWF** Third Pole Geolab website for presenting findings of the WWF snow leopard range-wide climate vulnerability assessment and water provision analysis.



**Regional Activity 2.5.2.** First steering committee meeting of the Global Snow Leopard and Ecosystem Protection Program (GSLEP) Secretariat organized by SLT, WWF, UNDP, and the Kyrgyz State Agency on Environment Protection and Forestry, Koi Tash, Kyrgyzstan, March 19-20, 2015.



**Regional Activity 2.5.2.** First steering committee meeting of the Global Snow Leopard and Ecosystem Protection Program (GSLEP) Secretariat organized by SLT, WWF, UNDP, and the Kyrgyz State Agency on Environment Protection and Forestry, Koi Tash, Kyrgyzstan, March 19-20, 2015.